PIONEER®
The Art of Entertainment

Service Manual

ORDER NO.
ARP2631

STEREO RECEIVER

SX-P830
HEWZI,SD,SL

SX-P730
HEWZI,SD,SL

● Refer to the service manual ARP2630 for SX−P830 and SX−P730.

SX−P830 AND SX−P730 HAVE THE FOLLOWING :

Type	Model		Power Requirement	Remarks
	SX−P830	SX−P730		
HEWZI	○	○	AC220V−230V, 240V (Switchable)*	
SD	○	○	AC110V, 120−127V, 220V, 240V (Switchable)	
SL	○	○	AC110V, 120V, 220V, 240V (Switchable)	

* Change the connection of the power transformer's primary wiring.

- This manual is applicable to the following : SX−P830/HEWZI, SD and SL ; SX−P730/HEWZI, SD and SL.
- These products are systems components.
  Each of these products does not function properly when independent ; to avoid malfunctions, be sure to connect it to the prescribed system component (s), otherwise damage may result.
  These product's accessories etc. are packed with their related component (s).

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, California 90801 U.S.A.
PIONEER ELECTRONICS OF CANADA, INC. 300 Allstate Parkway Markham, Ontario L3R 0P2 Canada
PIONEER ELECTRONIC [EUROPE] N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911
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1. CONTRAST OF MISCELLANEOUS PARTS

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

1.1 FOR SX–P830/HEWZI, SD AND SL

SX–P830/HEWZI, SD, SL and SX–P830/HE have the same construction except for the following :

Mark	Symbol & Description	Part No.				Remarks
		SX–P830/ HE	SX–P830/ HEWZI	SX–P830/ SD	SX–P830/ SL	
	TUNER assembly	AWE1261	AWE1225	AWE1227	AWE1227	
◉	MAIN assembly	AWZ4348	AWZ4349	AWZ4351	AWZ4351	
◉	SUB POWER assembly	AWZ4362	AWZ4363	AWZ4365	AWZ4365	
NSP	MIC assembly	....	....	AWZ4374	AWZ4374	
NSP	HEAD P. assembly	AWZ4375	AWZ4376	AWZ4375	AWZ4375	
◉	VR assembly	AWZ4991	AWZ4372	AWZ4991	AWZ4991	
◉	DISPLAY assembly	AWZ4326	AWZ4326	AWZ4328	AWZ4328	∗1
◉	FRONT AMP assembly	AWZ4334	AWZ4335	AWZ4336	AWZ4336	
⚠	S1 Voltage selector (AC110V/120–127V/220V/240V for SD type) (AC110V/120V/220V/240V for SL type)	....	....	AKX–507	AKX–507	
⚠	T1 Power transformer	ATS1374	ATS1374	ATS1376	ATS1376	
⚠	AC power cord	ADG1049	ADG1049	ADG1051	ADG1131	
⚠	FU51 Fuse (T1.25A/250V)	AEK–509	AEK–509	....	....	
⚠	FU51 Fuse (T4A/250V)	....	....	AEK–514	AEK–514	
⚠	FU52, FU53 Fuse (T1.6A/250V)	....	....	AEK–510	AEK–510	
	Front panel	AMB2042	AMB2042	AMB2043	AMB2043	
	Knob (MIC LEVEL)	....	....	AAB1253	AAB1253	
	Hinge button (PLS)	AAD2294	AAD2294	AAD2294	....	
NSP	Rear panel	ANC1939	ANC1940	ANC1941	ANC2049	
NSP	Barrier	....	....	AMR2365	AMR2365	
	Screw	....	....	ABA1095	ABA1095	(For MIC assembly)
	Front pad	AHA1567	AHA1567	AHA1506	AHA1506	
	Rear pad	AHA1568	AHA1568	AHA1488	AHA1488	
	Packing case	AHD2363	AHD2363	....	....	
	Operating instructions (English, French)	ARE1252	....	....	....	
	Operating instructions (Dutch, Swedish, Spanish, Portuguese)	ARE1254	....	....	....	
	Operating instructions (German, Italian)	ARC1379	ARC1379	....	....	

∗1 : *Although AWZ4328 and AWZ4326 are different in part number, they have the same service parts.*

TUNER ASSEMBLY

AWE1225, AWE1227 and AWE1261 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWE1261	AWE1225	AWE1227	
	L901, L903, L905, L908	LAU2R2K	LAU2R2M	LAU2R2M	
	L904	LAU010K	LAU010M	LAU010M	
	L906	....	LAU330K	....	
	TC901	....	ACM−018	....	
	C908	....	CKDYF223Z50	....	
	C909	....	CKDYF103Z50	....	
	C915	CKDYF223Z50	....	CKDYF223Z50	
	C919	CKDYF223Z50	CKDYF473Z50	CKDYF223Z50	
	C922	CKDYF223Z50	CKPUYF223Z25	CKDYF223Z50	
	C952, C953	CKDYB122K50	CKDYB102K50	CKDYB122K50	
	C961, C962	CKDYB272K50	CKDYB392K50	CKDYB562K50	
	C964	CKPUYB101K50	CKPUYB101K50	....	
	C965	CKPUYB102K50	CKPUYB102K50	....	
	C968	CCDSL101J50	CCDCH101J50	CCDSL101J50	
	C969	....	CCDCH270J50	....	
	R920	RD1/8PM103J	RD1/8PM472J	RD1/8PM103J	
	R922	....	RD1/8PM680J	....	
	R924	RD1/8PM331J	RD1/8PM561J	RD1/8PM331J	
	R925	....	RD1/8PM221J	....	
	R943	RD1/8PM433J	RD1/8PM473J	RD1/8PM433J	
	R955	RD1/8PM152J	RD1/8PM122J	RD1/8PM152J	
	R959, R960	RD1/8PM392J	RD1/8PM682J	RD1/8PM392J	
	4P antenna terminal	....	....	AKA1009	
	4P antenna terminal with PAL	AKA1010	....	....	
	2P antenna terminal with PAL	....	AKA1012	....	
	2 Serial F. E. module assembly	AXQ1002	....	AXQ1002	
	4 Serial F. E. module assembly	....	AXQ1004	....	*2
	AM RF Tuning block	AXX1011	AXX1014	AXX1011	

**2 : 4 Serial F. E. module assembly has no service part.*

FRONT AMP ASSEMBLY

AWZ4335, AWZ4336 and AWZ4334 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWZ4334	AWZ4335	AWZ4336	
	IC201	STK4160−2G	STK4160−2G	STK4170−2G	
	C2024, C2025	....	CKPUYB101K50	....	
	C2028, C2029	....	CCCSL470J50	....	

MAIN ASSEMBLY

AWZ4349, AWZ4351 and AWZ4348 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWZ4348	AWZ4349	AWZ4351	
	S401 (9k/10k Step Selector)	···············	···············	ASH1027	
	L251, L252	ATH−133	ATH−059	ATH−133	
	L2001, L2002	···············	ATH−059	···············	
	C1027	CQMA104K250	CQMA473K250	CQMA104K250	
	C2005, C2006	···············	CCSQCH470J50	···············	
	C2007, C2008, C2011, C2012	···············	CKCYB103K50	···············	
	C2010	···············	CKCYB122K50	···············	
	C2018	···············	CQMA473K250	···············	
	C2019	···············	CKSQYB103K50	···············	
	C2020, C2021	···············	CCSQCH101J50	···············	
	C2022, C2023	···············	CKSQYB473K50	···············	
	R112	RS2LMF221J	RS2LMF221J	RS2LMF331J	
	R251, R252	RD1/4PMFL100J	RD1/4PMFL101J	RD1/4PMFL100J	
	R449	RS1/10S102J	RS1/10S102J	···············	
	R916	···············	···············	RS1/10S563J	
	R955	···············	···············	RS1/10S000J	
	CN15	···············	···············	KPC4	

SUB POWER ASSEMBLY

AWZ4363, AWZ4365 and AWZ4362 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWZ4362	AWZ4363	AWZ4365	
	S51	···············	···············	AKX1033	
	C2026	···············	CQMA473K250	···············	

HEAD P. ASSEMBLY

AWZ4376 and AWZ4375 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4375	AWZ4376	
	C2501, C2502	···············	CKPUYB101K50	

VR ASSEMBLY

AWZ4372 and AWZ4991 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4991	AWZ4372	
	C2305, C2306	....	CCSQCH101J50	
	C2311, C2312	....	CCSQCH220J50	

PCB PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω → 56 × 10¹ → 561 .... RD1/8PM 5 6 1 J
47kΩ → 47 × 10³ → 473 .... RD1/4PS 4 7 3 J
0.5Ω → 0R5 .... RN2H 0 R 5 K
1Ω → 010 .... RS1P 0 1 0 K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62kΩ → 562 × 10¹ → 5621 .... RN1/4PC 5 6 2 1 F

MIC ASSEMBLY (SD, SL TYPES ONLY)

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC1501		NJM4558M−D
CAPACITORS			
	C1502		CEJA010M50
	C1504, C1505		CEJA100M16
	C1503		CKSQYB471K50
	C1501		CKSQYB681K50
	C1506, C1507		CKSQYF473Z50
RESISTORS			
	VR1501	(10k−B)	ACS1074
	R1506		RS1/10S102J
	R1503		RS1/10S103J
	R1502, R1507		RS1/10S104J
	R1501		RS1/10S222J
	R1504		RS1/10S224J
	R1505		RS1/10S681J
OTHERS			
		MIC JACK	AKN1009

1.2 FOR SX−P730/HEWZI, SD AND SL

SX−P730/HEWZI, SD, SL and SX−P730/HE have the same construction except for the following :

Mark	Symbol & Description	Part No.				Remarks
		SX−P730/ HE	SX−P730/ HEWZI	SX−P730/ SD	SX−P730/ SL	
	TUNER assembly	AWE1261	AWE1225	AWE1227	AWE1227	∗3
◉	MAIN assembly	AWZ4357	AWZ4358	AWZ4359	AWZ4359	
◉	SUB POWER assembly	AWZ4362	AWZ4363	AWZ4365	AWZ4365	∗3
NSP	MIC assembly	....	....	AWZ4374	AWZ4374	∗3
NSP	HEAD P. assembly	AWZ4375	AWZ4376	AWZ4375	AWZ4375	∗3
◉	VR assembly	AWZ4991	AWZ4372	AWZ4991	AWZ4991	∗3
◉	FRONT AMP assembly	AWZ4341	AWZ4342	AWZ4343	AWZ4343	∗4
⚠	S1 Voltage selector (AC110V/120−127V/220V/240V for SD type) (AC110V/120V/220V/240V for SL type)	....	....	AKX−507	AKX−507	
⚠	T1 Power transformer	ATS1438	ATS1438	ATS1439	ATS1439	
⚠	AC power cord	ADG1049	ADG1049	ADG1051	ADG1049	
⚠	FU51 Fuse (T1A/250V)	AEK−508	AEK−508	....	....	
⚠	FU51 Fuse (T2A/250V)	....	....	AEK−511	AEK−511	
⚠	FU52, FU53 Fuse (T1A/250V)	....	....	AEK−508	AEK−508	
	Front panel	AMB2044	AMB2044	AMB2045	AMB2045	
	Knob (MIC LEVEL)	....	....	AAB1253	AAB1253	
NSP	Rear panel	ANC1944	ANC1945	ANC1946	ANC2050	
NSP	Barrier	....	....	AMR2365	AMR2365	
	Screw	....	ABA1095	ABA1095	ABA1095	(For MIC assembly
	Front pad	AHA1567	AHA1567	AHA1506	AHA1506	
	Rear pad	AHA1568	AHA1568	AHA1488	AHA1488	
	Packing case	AHD2364	AHD2364	....	....	
	Operating instructions (English, French)	ARE1252	....	....	....	
	Operating instructions (Dutch, Swedish, Spanish, Portuguese)	ARE1254	....	....	....	
	Operating instructions (German, Italian)	ARC1379	ARC1379	....	....	

Note : "∗3" mark indicates assemblies of SX−P730 are the same as those of SX−P830. Refer to pages 3−5.

MAIN ASSEMBLY

AWZ4358, AWZ4359 and AWZ4357 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWZ4357	AWZ4358	AWZ4359	
	S401	....	....	ASH1027	
	L251, L252	ATH−133	ATH−059	ATH−133	
	L2001, L2002	....	ATH−059	....	
	C1027	CQMA104K250	CQMA473K250	CQMA104K250	
	C2005, C2006	....	CCSQCH470J50	....	
	C2007, C2008, C2011, C2012	....	CKCYB103K50	....	
	C2018	....	CQMA473K250	....	
	C2019	....	CKSQYB103K50	....	
	C2020, C2021	....	CCSQCH101J50	....	
	C2022, C2023	....	CKSQYB473K50	....	
	R251, R252	RD1/4PMFL100J	RD1/4PMFL101J	RD1/4PMFL100J	
	R449	RS1/10S102J	RS1/10S102J	....	
	R916	....	....	RS1/10S563J	
	R955	....	....	RS1/10S000J	
	CN15	....	....	KPC4	

FRONT AMP ASSEMBLY

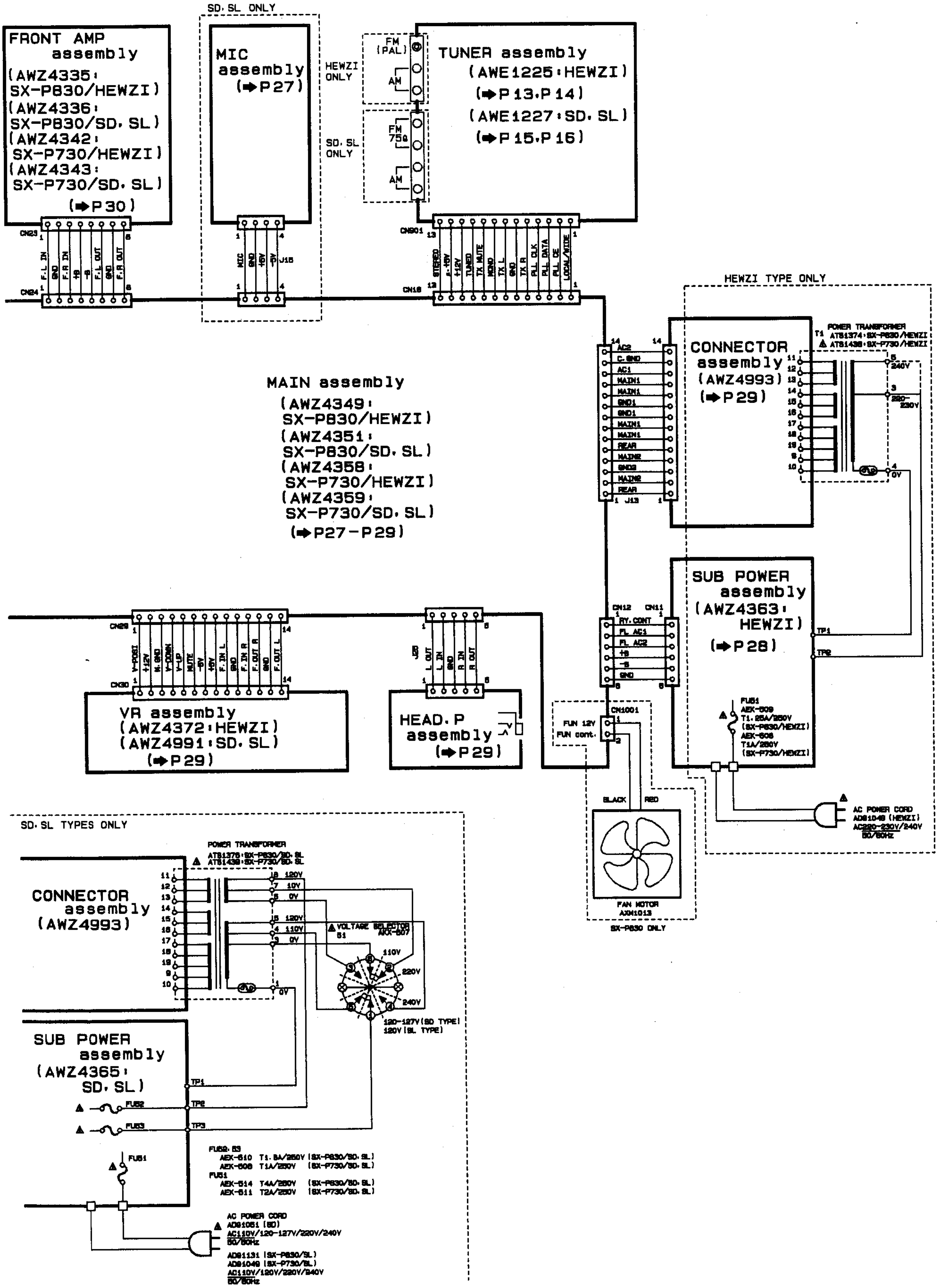
AWZ4342 and AWZ4341 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4341	AWZ4342	
	C2024, C2025	....	CKPUYB101K50	....
	C2028, C2029	....	CCCSL470J50	....

**4 : Although AWZ4343 and AWZ4341 are different in part number, they have the same service parts.*

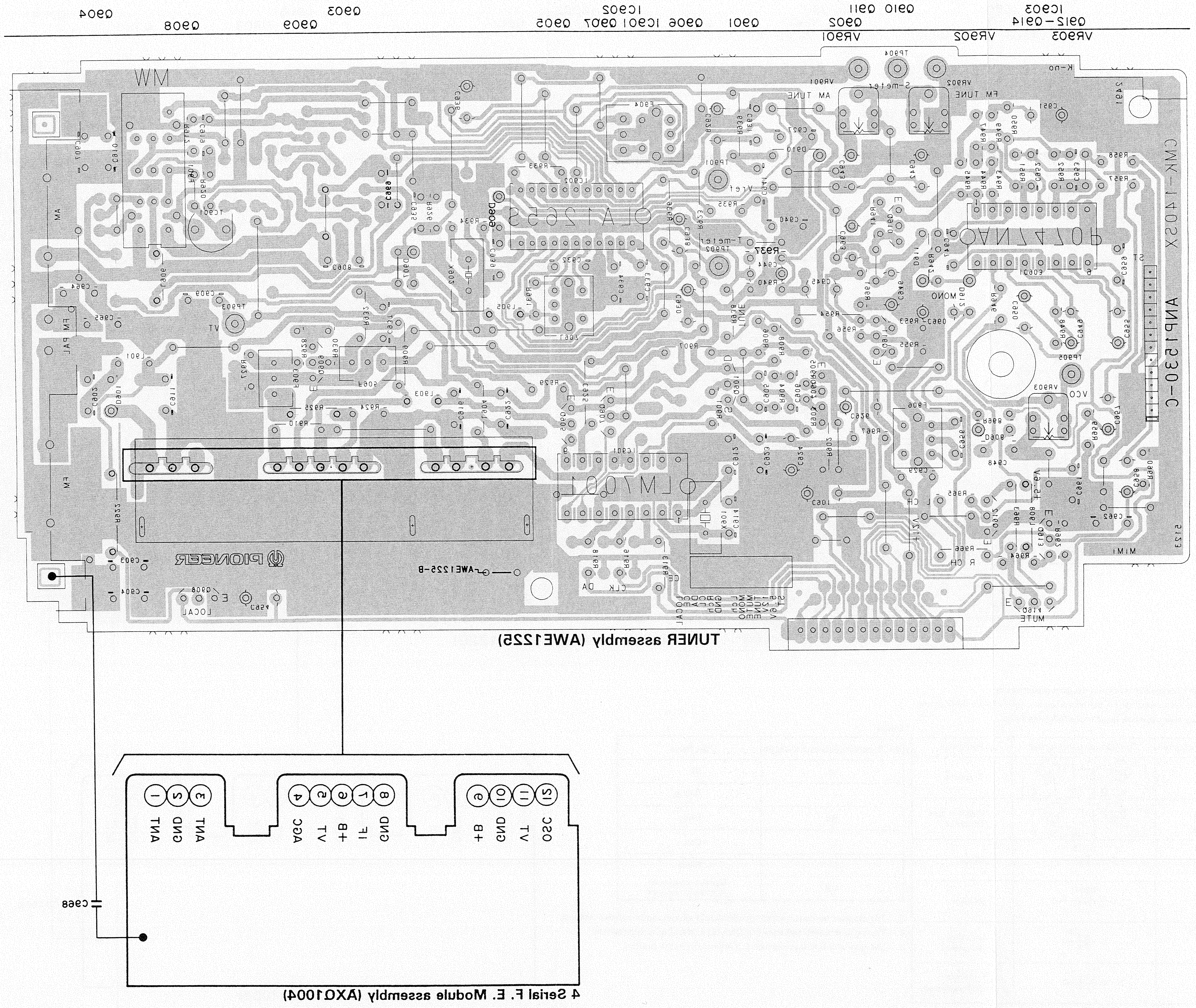
2. SCHEMATIC DIAGRAMS AND PCB PATTERNS

2.1 CONNECTION DIAGRAM


FRONT AMP assembly
(AWZ4335: SX-P830/HEWZI)
(AWZ4336: SX-P830/SD, SL)
(AWZ4342: SX-P730/HEWZI)
(AWZ4343: SX-P730/SD, SL)
(➡P30)
CN23
CN24
F.L IN
GND
F.R IN
+B
-B
F.L OUT
GND
F.R OUT
SD, SL ONLY
MIC assembly
(➡P27)
MIC
GND
+5V
-5V
J15
HEWZI ONLY
FM (PAL)
AM
SD, SL ONLY
FM 75Ω
AM
TUNER assembly
(AWE1225: HEWZI)
(➡P13, P14)
(AWE1227: SD, SL)
(➡P15, P16)
CN901
CN18
STEREO
μ.+5V
+12V
TUNED
TX MUTE
MONO
TX L
GND
TX R
PLL CLK
PLL DATA
PLL CE
LOCAL/WIDE
MAIN assembly
(AWZ4349: SX-P830/HEWZI)
(AWZ4351: SX-P830/SD, SL)
(AWZ4358: SX-P730/HEWZI)
(AWZ4359: SX-P730/SD, SL)
(➡P27–P29)
HEWZI TYPE ONLY
AC2
C.GND
AC1
MAIN1
MAIN1
GND1
GND1
MAIN1
MAIN1
REAR
MAIN2
GND2
MAIN2
REAR
J13
CONNECTOR assembly
(AWZ4993)
(➡P29)
T1 POWER TRANSFORMER
ATS1374: SX-P830/HEWZI
ATS1438: SX-P730/HEWZI
240V
220–230V
0V
SUB POWER assembly
(AWZ4363: HEWZI)
(➡P28)
TP1
TP2
FU51
AEK-509
T1.25A/250V
(SX-P830/HEWZI)
AEK-508
T1A/250V
(SX-P730/HEWZI)
AC POWER CORD
ADG1048 (HEWZI)
AC220–230V/240V
50/60Hz
CN12
CN11
RY.CONT
FL AC1
FL AC2
+B
-B
GND
CN1001
FUN 12V
FUN cont.
BLACK
RED
FAN MOTOR
AXM1013
SX-P830 ONLY
CN29
CN30
V-POSI
+12V
M.GND
V-DOWN
V-UP
MUTE
-5V
+5V
F.IN L
GND
F.IN R
F.OUT R
GND
F.OUT L
VR assembly
(AWZ4372: HEWZI)
(AWZ4991: SD, SL)
(➡P29)
J28
L OUT
L IN
GND
R IN
R OUT
HEAD.P assembly
(➡P29)
SD, SL TYPES ONLY
CONNECTOR assembly
(AWZ4993)
POWER TRANSFORMER
ATS1376: SX-P830/SD, SL
ATS1439: SX-P730/SD, SL
120V
10V
0V
120V
110V
0V
0V
VOLTAGE SELECTOR
S1
AKX-507
110V
220V
240V
120–127V (SD TYPE)
120V (SL TYPE)
SUB POWER assembly
(AWZ4365: SD, SL)
TP1
FU52
TP2
FU53
TP3
FU51
FU52, 53
AEK-510 T1.6A/250V (SX-P830/SD, SL)
AEK-508 T1A/250V (SX-P730/SD, SL)
FU51
AEK-514 T4A/250V (SX-P830/SD, SL)
AEK-511 T2A/250V (SX-P730/SD, SL)
AC POWER CORD
ADG1051 (SD)
AC110V/120–127V/220V/240V
50/60Hz
ADG1131 (SX-P830/SL)
ADG1049 (SX-P730/SL)
AC110V/120V/220V/240V
50/60Hz

2.2 TUNER ASSEMBLY (HEWZI TYPE)

This P. C. B. connection diagram is viewed from the foil side.

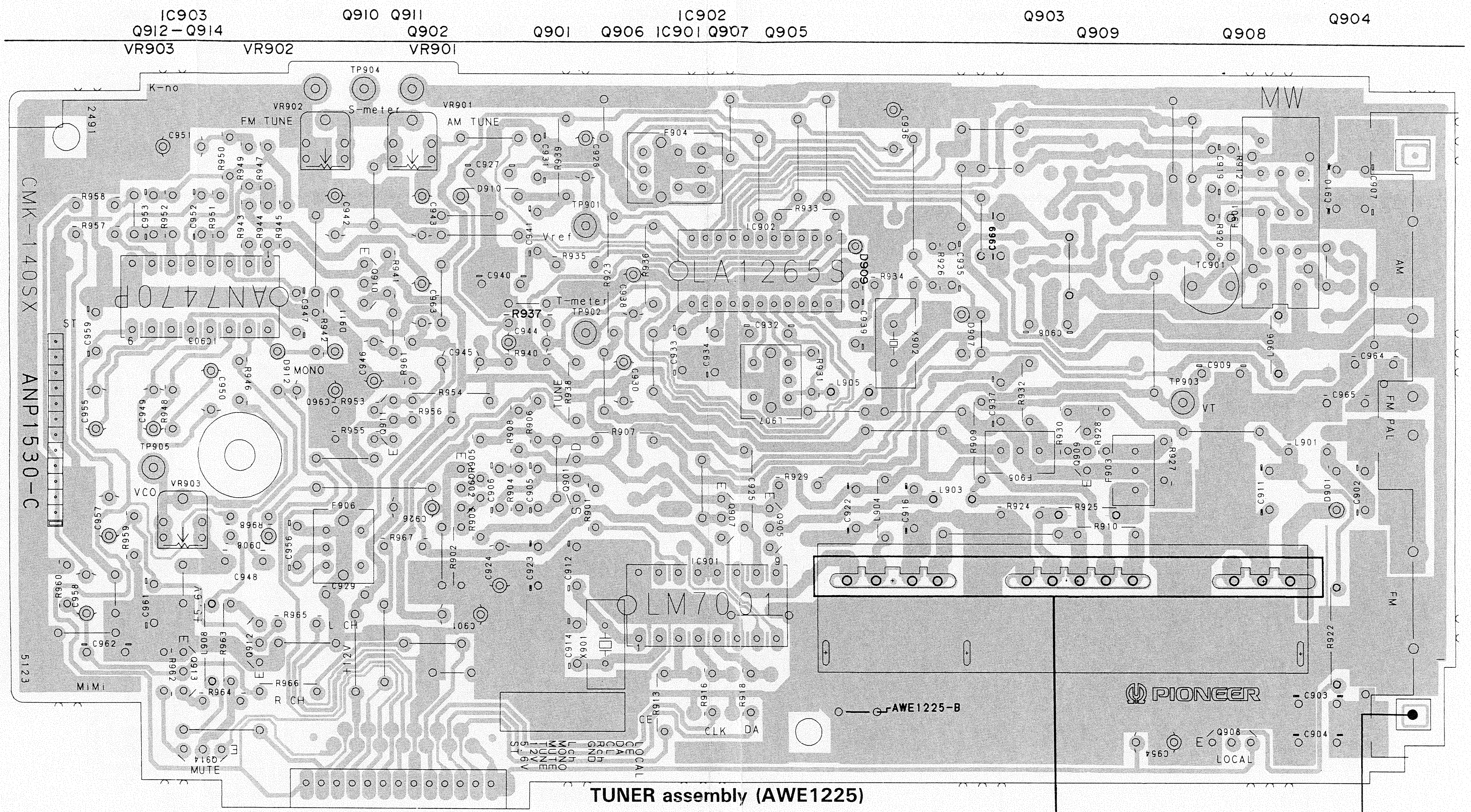

Q904
Q908
Q909
Q903
IC902
Q905
Q907
IC901
Q906
Q901
Q902
Q910
Q911
IC903
Q912 – Q914
VR901
VR902
VR903
MW
FM
PIONEER
AWE1225-B
ANP1560-C
LOCAL
MUTE
C968
1
2
3
4
5
6
7
8
9
10
11
12
ANT
GND
ANT
AGC
TV
B+
IF
GND
B+
GND
TV
OSC

TUNER assembly (AWE1225)

4 Serial F. E. Module assembly (AXQ1004)

This P. C. B connection diagram is viewed from the parts mounted side.

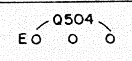
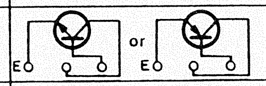
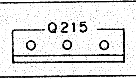
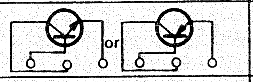
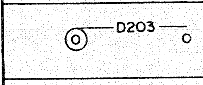
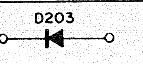
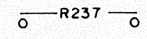
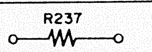
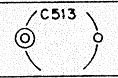
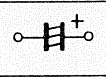
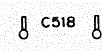
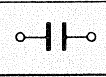
2.2 TUNER ASSEMBLY (HEWZI TYPE)


IC903
Q912 – Q914
VR903
VR902
Q910 Q911
Q902
VR901
Q901
Q906
IC902
IC901
Q907
Q905
Q903
Q909
Q908
Q904
TP904
K-no
FM TUNE
S-meter
AM TUNE
MW
AN7470P
LA1265S
LM7001
CMK-140SX
ANP1530-C
T-meter
Vref
TP901
TP902
TP903
TP905
VCO
MONO
ST
AM
FM PAL
FM
VT
L CH
R CH
+12V
MiMi
MUTE
CLK
DA
LOCAL
AWE1225-B
PIONEER

TUNER assembly (AWE1225)

NOTE

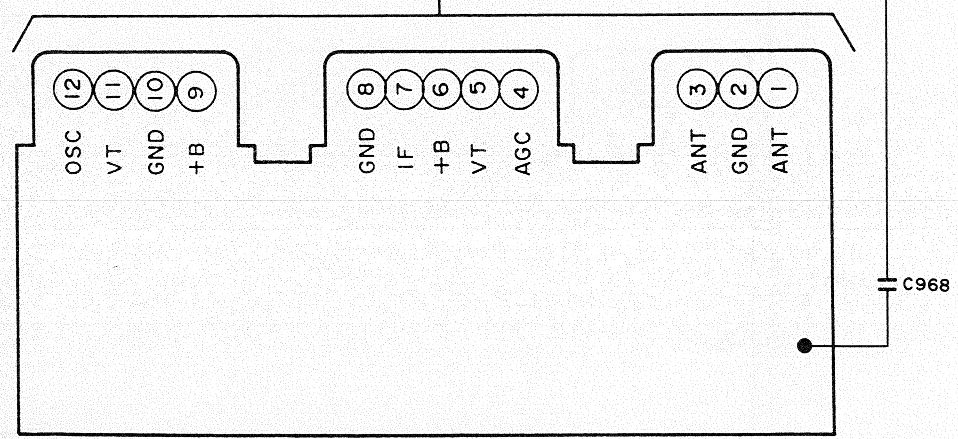
1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
 Q504		Transistor
 Q215		Radiator type transistor
 D203	 D203	Diode
 R237	 R237	Resistor
 C513		Capacitor (Polarized)
 C518		Capacitor (Non-polarized)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ◎ (double circles) shows negatine terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.


12 11 10 9
OSC VT GND +B
8 7 6 5 4
GND IF +B VT AGC
3 2 1
ANT GND ANT
C968

4 Serial F. E. Module assembly (AXQ1004)

IC901 (LM7001)

Pin No.	Voltage	Pin No.	Voltage
1	1.1	9	0.46
2	1.5	10	0 (1.7 when AM)
3	0	11	2.7
4	0	12	5.0
5	0	13	5.0
6	0	14	0.7
7	—	15	—
8	0	16	0

IC902 (LA1265S)

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	2.3	10	2.8	17	0
2	2.3	11	1.5		12.0 (when AM)
3	2.3	12	1.5	18	0
4	0	13	1.4 (when MAX)		2.0 (when AM)
5	12.0	14	1.4 (when MAX)	19	0
6	12.0		0 (when AM)		2.0 (when AM)
7	12.0	15	2.3	20	3.8
8	0 (T)		1.1 (when AM)	21	3.8
	5.1 (D)	16	1.4	22	2.8
9	3.8				1.5 (when AM)

NOTE :
(T) when TUNE IND. is ON, (D) when TUNE IND. is OFF.

IC903 (AN7470P)

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	11.2	9	4.9	15	3.2
2	2.6		0.6 (when STEREO)	16	0
3	6.1				11.4 (when AM)
4	8.9	10	2.6		
5	8.9	11	2.6		4.0 (when MONO)
6	3.9	12	2.6		
7	3.9	13	—		
8	0	14	2.6		

Note: Type 1

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   V : Signal voltage at rated output.
   ▭ : DC voltage (V) at no input signal unless otherwise noted. Value in ( ) is DC voltage at rated power.
   mV : Signal voltage at FM 1kHz, 100% MOD.
   ⇦ mA or ← mA : DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ➡ : Signal route.
   - ⊘ : Adjusting point.
   - ▼ : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SWITCHES** (Underline indicates switch position):

S1	VOLTAGE SELECTOR (SD, SL ONLY) (AC110V/120−127V/220V/240V for SD type) (AC110V/120V/220V/240V for SL type)

DISPLAY assembly

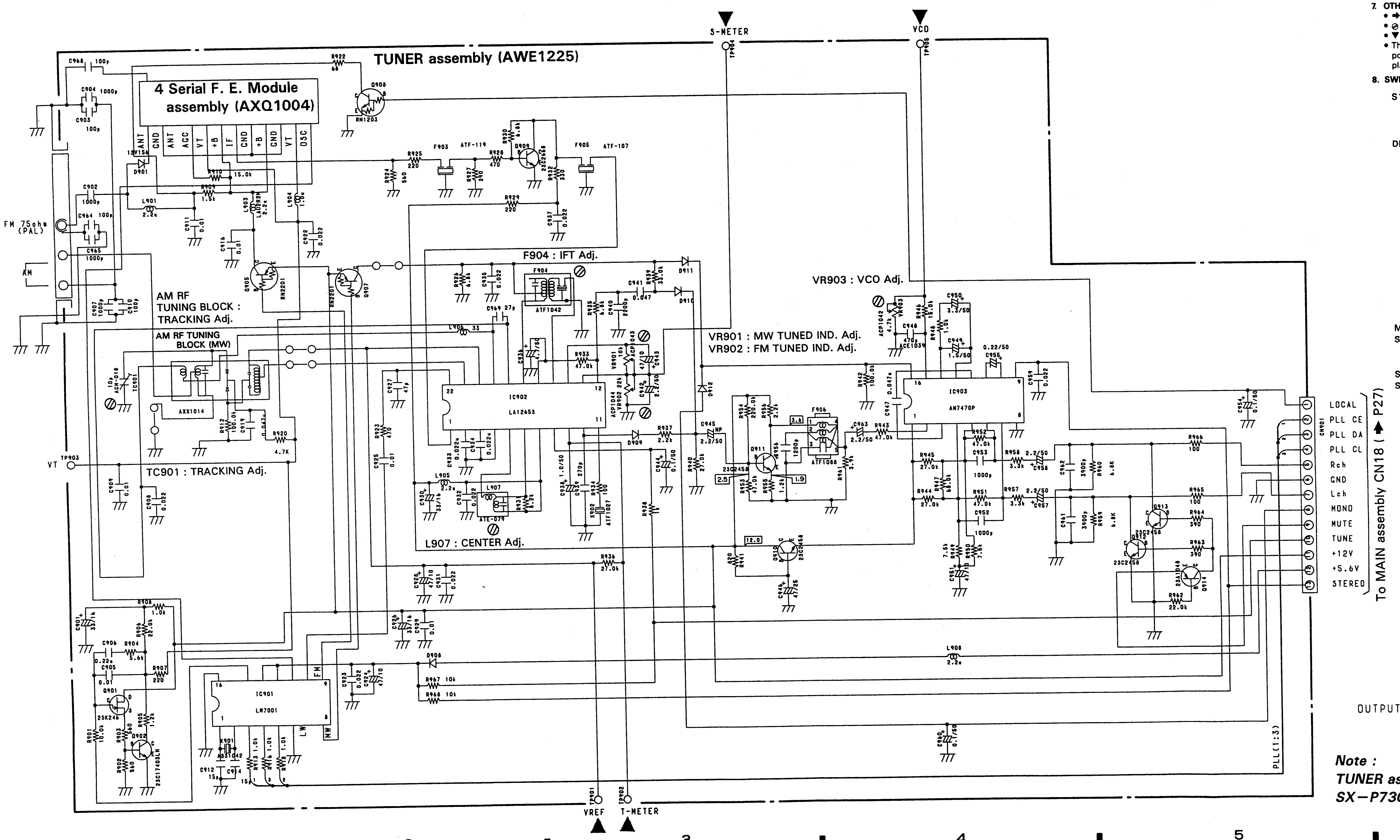
S1001	CLOCK ADJ.
S1002	REC
S1003	WAKE−UP
S1004	SET
S1005	NALLOW/LOCAL
S1006	M. SCAN
S1007	MEMORY (AUTO)
S1008	AUTO TUNE
S1009	FUNCTION
S1010	SUPER P. BASS
S1011	FREQ/STATION
S1012	BAND
S1013	POWER STANDBY/ON
S1030	TUNING JOG

MAIN ASSEMBLY

S401	100/10kHz, 50/9kHz (FM/AM) (SD, SL types ONLY)

SUB POWER ASSEMBLY

S51	VOLTAGE SELECTOR (AC110−127V/220−240V) (SD, SL types ONLY)


S-METER
TP904
VCD
TP905
TUNER assembly (AWE1225)
4 Serial F. E. Module assembly (AXQ1004)
ANT
GND
ACC
VT
+B
IF
GND
+B
GND
VT
OSC
FM 75ohm (PAL)
AM
VT
TP903
AM RF TUNING BLOCK : TRACKING Adj.
AM RF TUNING BLOCK (MW)
AXX1014
TC901 : TRACKING Adj.
F903 ATF-119
F905 ATF-107
F904 : IFT Adj.
ATF1042
L907 : CENTER Adj.
ATE-079
IC902
LA1265S
VR901 : MW TUNED IND. Adj.
VR902 : FM TUNED IND. Adj.
VR903 : VCO Adj.
ACE1034
F906
ATF1088
IC903
AN7470P
IC901
LM7001
X901
Q901 2SK246
Q902 2SC1740SLN
Q905
Q907
Q908
Q909 2SC2458
Q910 2SC2458
Q911 2SC2458
Q912 2SC2458
Q913 2SC2458
Q914 2SA1048
RN1203
RN2201
D901
D906
D909
D910
D911
D912
L901
L903
L904
L905
L906
L908
CN901
LOCAL
PLL CE
PLL DA
PLL CL
Rch
GND
Lch
MONO
MUTE
TUNE
+12V
+5.6V
STEREO
To MAIN assembly CN18 (➡ P27)
PLL(1:3)
VREF
TP901
T-METER
TP902

OUTPUT LEVEL
1V

Note :
TUNER assemblies of SX−P830/HEWZI and SX−P730/HEWZI are the same.

2.3 TUNER ASSEMBLY (SD, SL TYPES)

IC901 (LM7001)

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	1.1	5	0	9	0.46	13	5.0
2	1.5	6	0	10	0 (1.7 when AM)	14	0.7
3	0	7	–	11	2.7	15	–
4	0	8	0	12	5.0	16	0

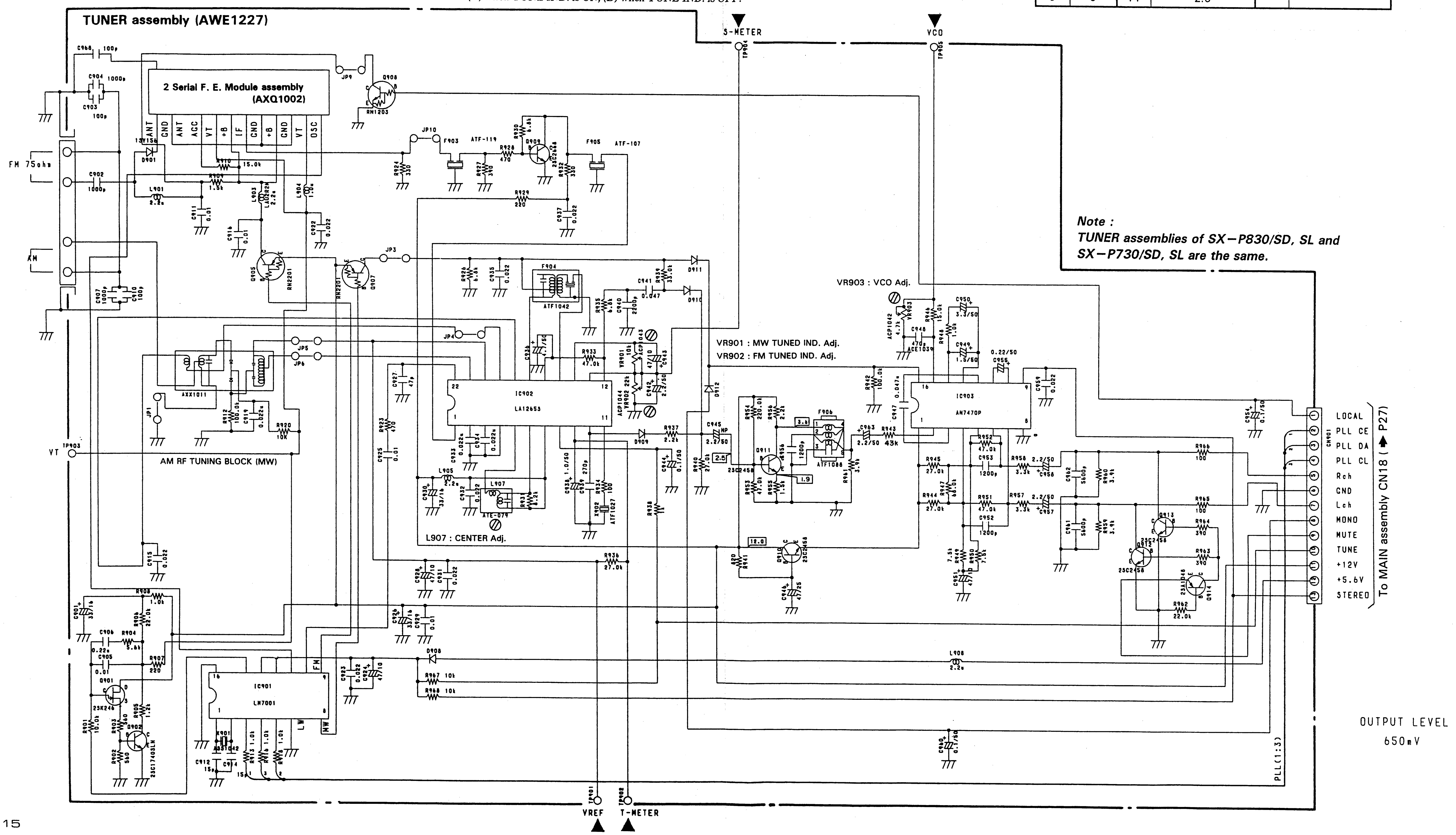
IC902 (LA1265S)

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	2.3	7	12.0	12	1.5	16	1.4	19	0
2	2.3	8	0 (T)	13	1.4 (when MAX)				2.0 (when AM)
3	2.3		5.1 (D)	14	1.4 (when MAX)	17	0	20	3.8
4	0	9	3.8		0 (when AM)		12.0 (when AM)	21	3.8
5	12.0	10	2.8	15	2.3	18	0	22	2.8
6	12.0	11	1.5		1.1 (when AM)		2.0 (when AM)		1.5 (when AM)

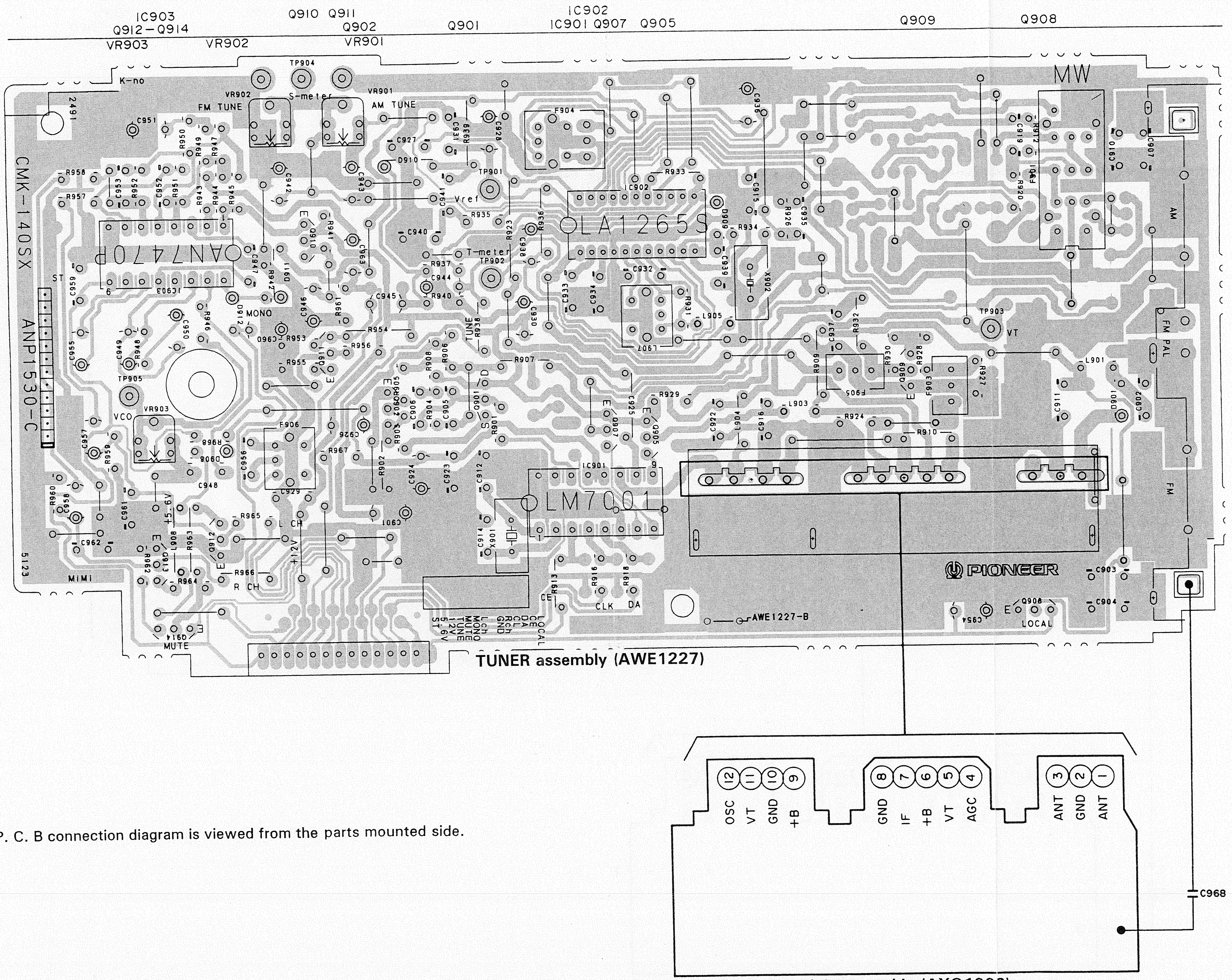
NOTE :
(T) when TUNE IND. is ON, (D) when TUNE IND. is OFF.

IC903 (AN7470P)

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	11.2	9	4.9	15	3.2
2	2.6		0.6 (when STEREO)	16	0
3	6.1				11.4 (when AM)
4	8.9	10	2.6		
5	8.9	11	2.6		4.0 (when MONO)
6	3.9	12	2.6		
7	3.9	13	—		
8	0	14	2.6		


TUNER assembly (AWE1227)
2 Serial F. E. Module assembly (AXQ1002)
ANT GND ANT ACC VT +B IF GND +B GND VT OSC
FM 75ohm
AM
VT
TP903
AM RF TUNING BLOCK (MW)
AXX1011
S-METER
TP904
VCO
TP905
VR903 : VCO Adj.
VR901 : MW TUNED IND. Adj.
VR902 : FM TUNED IND. Adj.
L907 : CENTER Adj.
IC902 LA1265S
IC903 AN7470P
IC901 LM7001
ATF-119
ATF-107
ATF1042
ATF1088
ATF1027
ATE-079
LOCAL
PLL CE
PLL DA
PLL CL
Rch
GND
Lch
MONO
MUTE
TUNE
+12V
+5.6V
STEREO
CN901
To MAIN assembly CN18 (➡ P27)
PLL(1:3)
OUTPUT LEVEL
650mV
VREF
TP901
T-METER
TP902

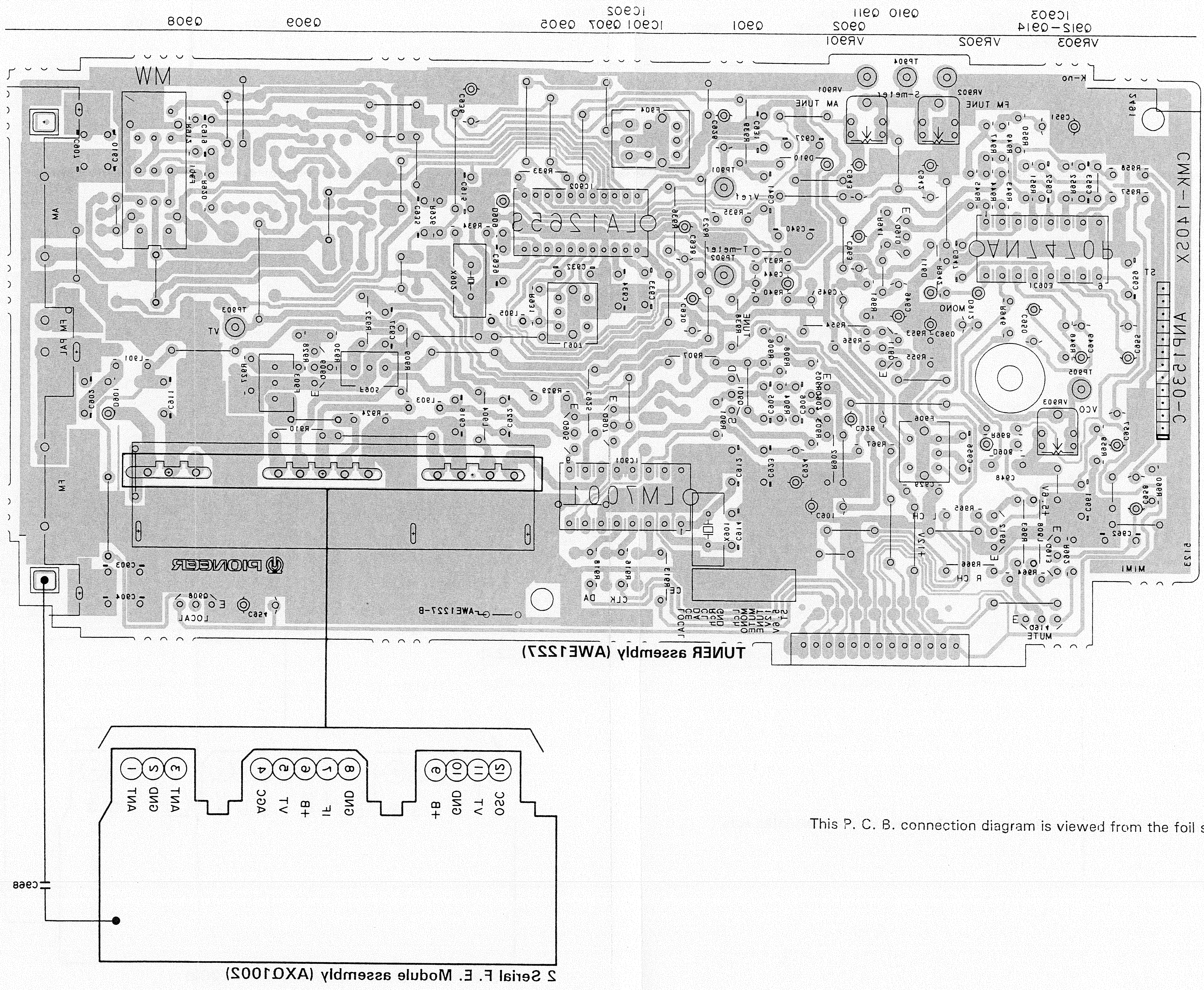
Note :
TUNER assemblies of SX−P830/SD, SL and SX−P730/SD, SL are the same.


1
2
3
4
5
6
A
B
C
D
IC903
Q912–Q914
VR903
VR902
Q910 Q911
Q902
VR901
Q901
IC902
IC901 Q907 Q905
Q909
Q908
MW
AM
FM PAL
FM
FM TUNE
AM TUNE
S-meter
T-meter
Vref
VT
TP901
TP902
TP903
TP904
TP905
VCO
MONO
ST
K-no
MIMI
CMK-140SX
ANP1530-C
AN7470P
LA1265S
LM7001
L CH
R CH
+5.6V
+12V
MUTE
CLK
DA
CE
LOCAL
AWE1227-B
PIONEER
2491
5123
Lch
MONO
TUNE
12V
5.6V
ST
Rch
GND
CLA
DA
CE
LOCAL
C968
12
11
10
9
8
7
6
5
4
3
2
1
OSC
VT
GND
+B
GND
IF
+B
VT
AGC
ANT
GND
ANT

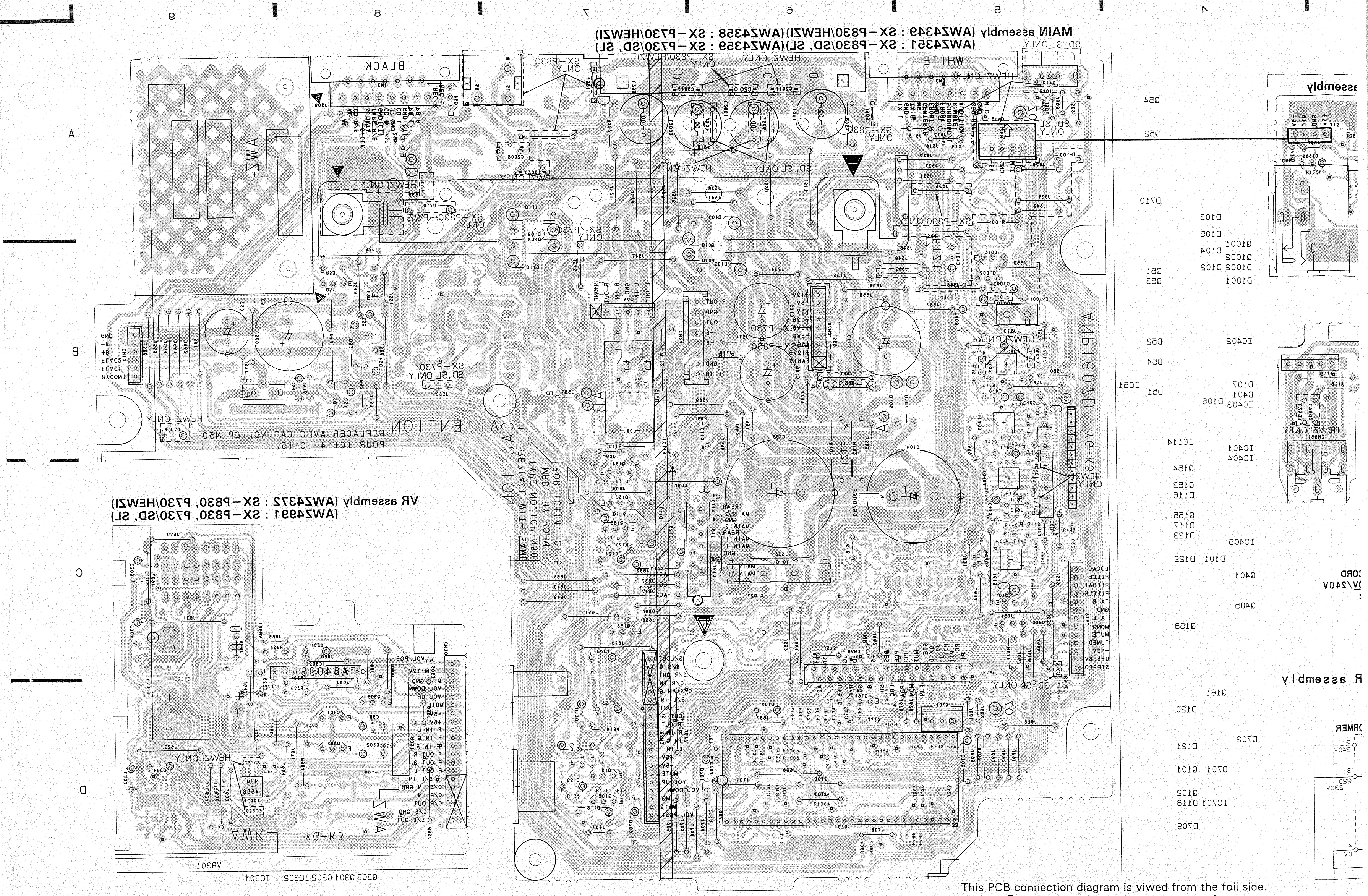
TUNER assembly (AWE1227)

2 Serial F. E. Module assembly (AXQ1002)

This P. C. B connection diagram is viewed from the parts mounted side.

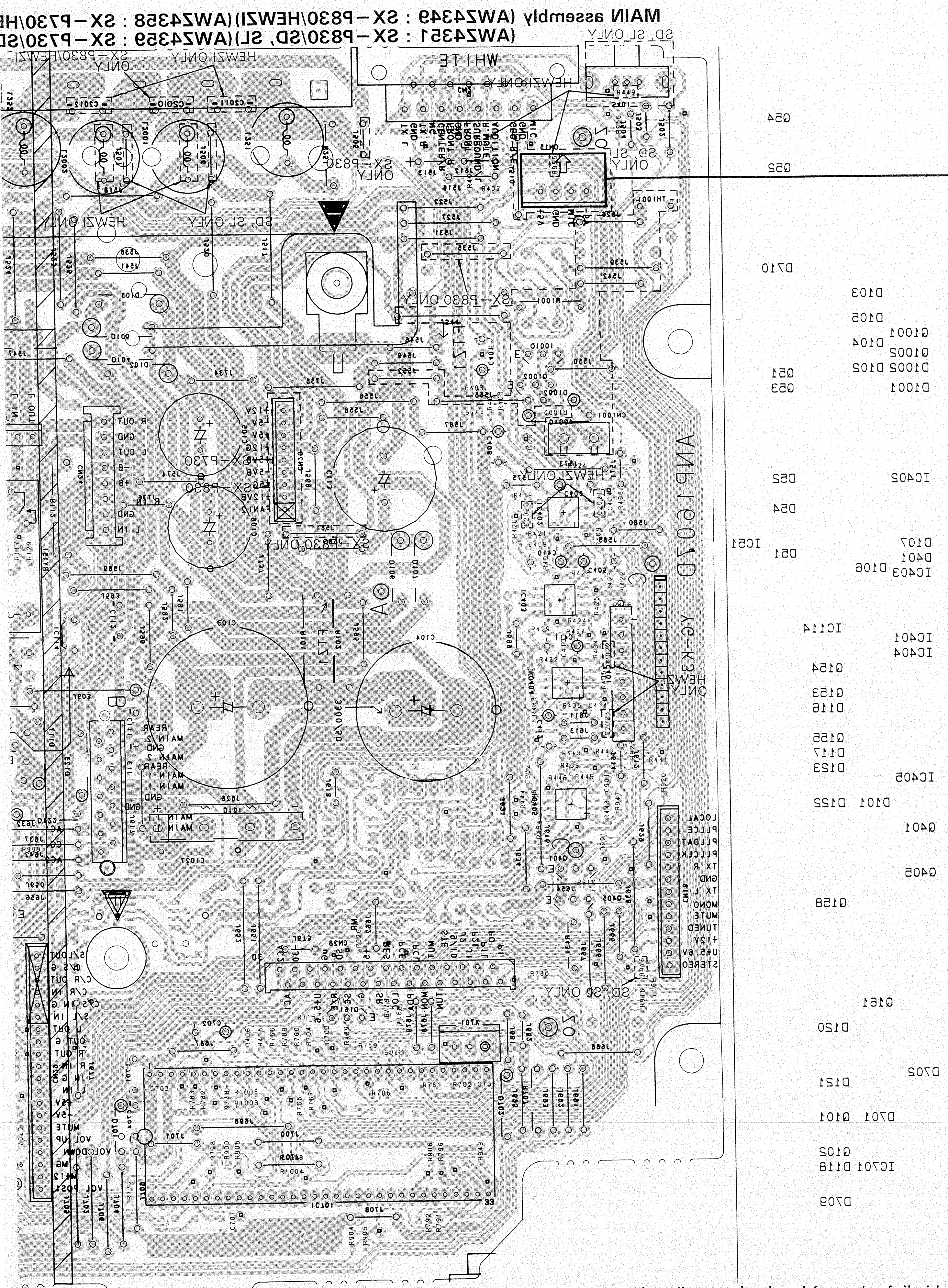

Q908
Q909
IC902
Q905 Q907 IC901
Q901
Q910 Q911
Q902
VR901
VR902
IC903
Q912–Q914
VR903
MW
FM
AM TUNE
FM TUNE
S-meter
T-meter
LA1265S
LM7001
CMK-1405X
ANP1530-C
MONO
VCO
ST
L CH
R CH
MUTE
LOCAL
CLK
DA
CE
PIONEER
AWE1227-B
TUNER assembly (AWE1227)
1 ANT
2 GND
3 ANT
4 AGC
5 TV
6 +B
7 IF
8 GND
9 +B
10 GND
11 TV
12 OSC
C968
2 Serial F. E. Module assembly (AXQ1002)

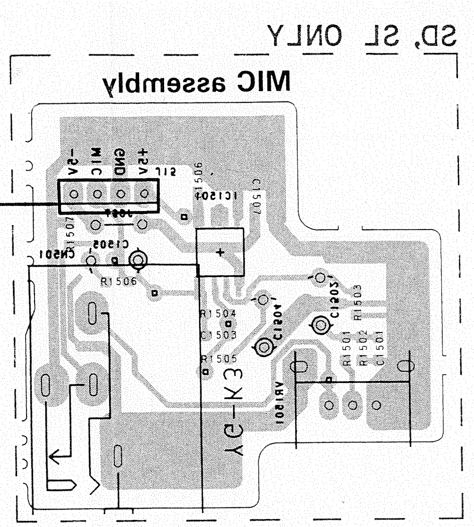
This P. C. B. connection diagram is viewed from the foil side.

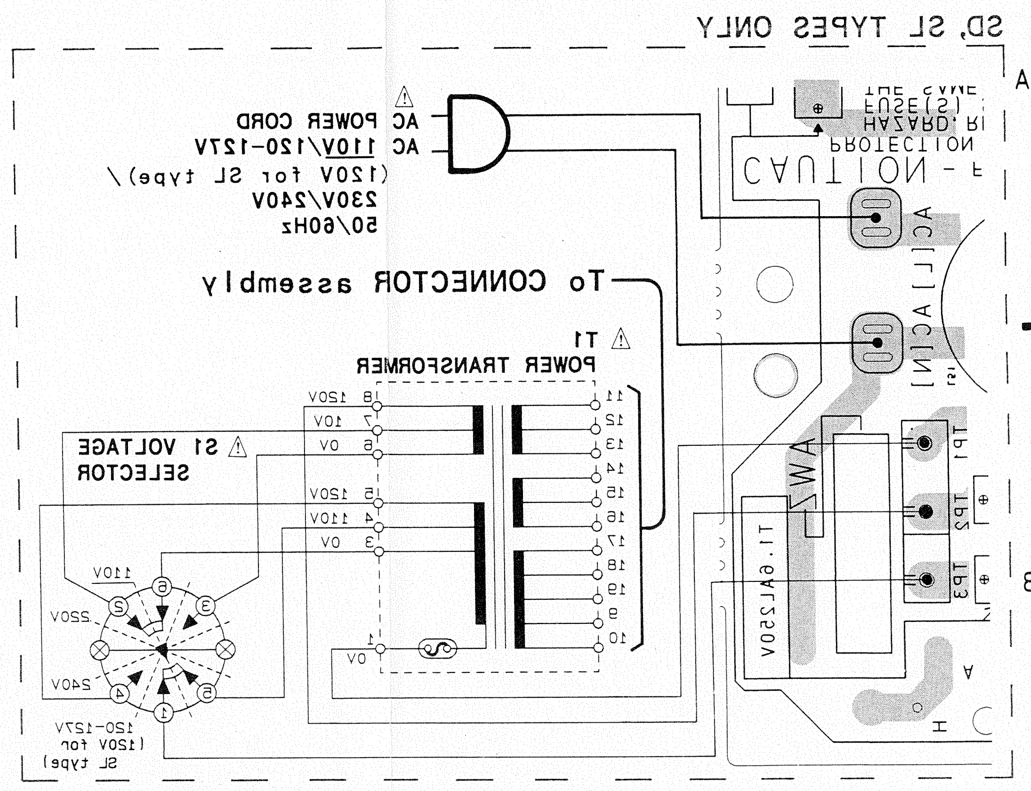

MAIN assembly (AWZ4349 : SX-P830/HEWZI)(AWZ4358 : SX-P730/HEWZI)
(AWZ4351 : SX-P830/SD, SL)(AWZ4359 : SX-P730/SD, SL)
VR assembly (AWZ4372 : SX-P830, P730/HEWZI)
(AWZ4991 : SX-P830, P730/SD, SL)
A
B
C
D
9
8
7
6
5
4

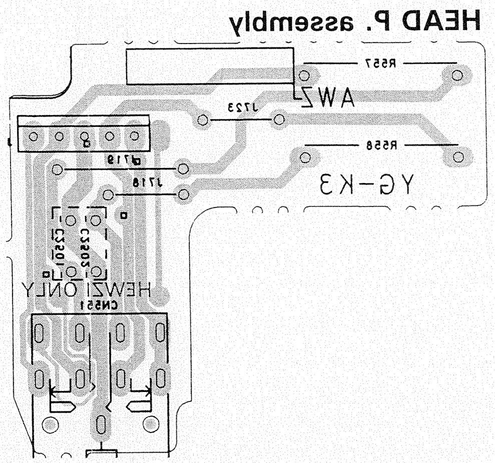
This PCB connection diagram is viwed from the foil side.

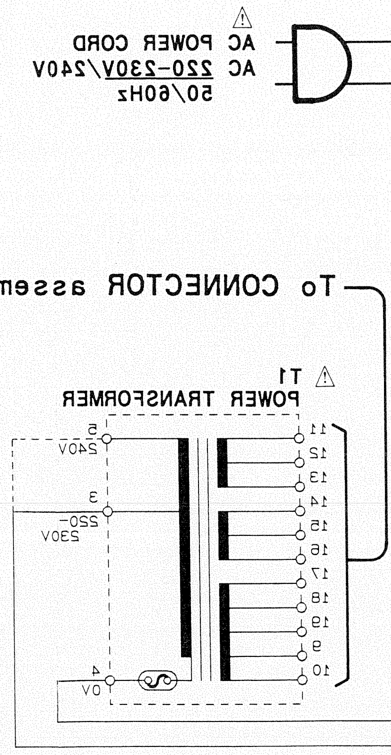
2.4 MAIN ASSEMBLY, SUB POWER ASSEMBLY, HEAD P. ASSEMBLY, VR ASSEMBLY AND MIC ASSEMBLY

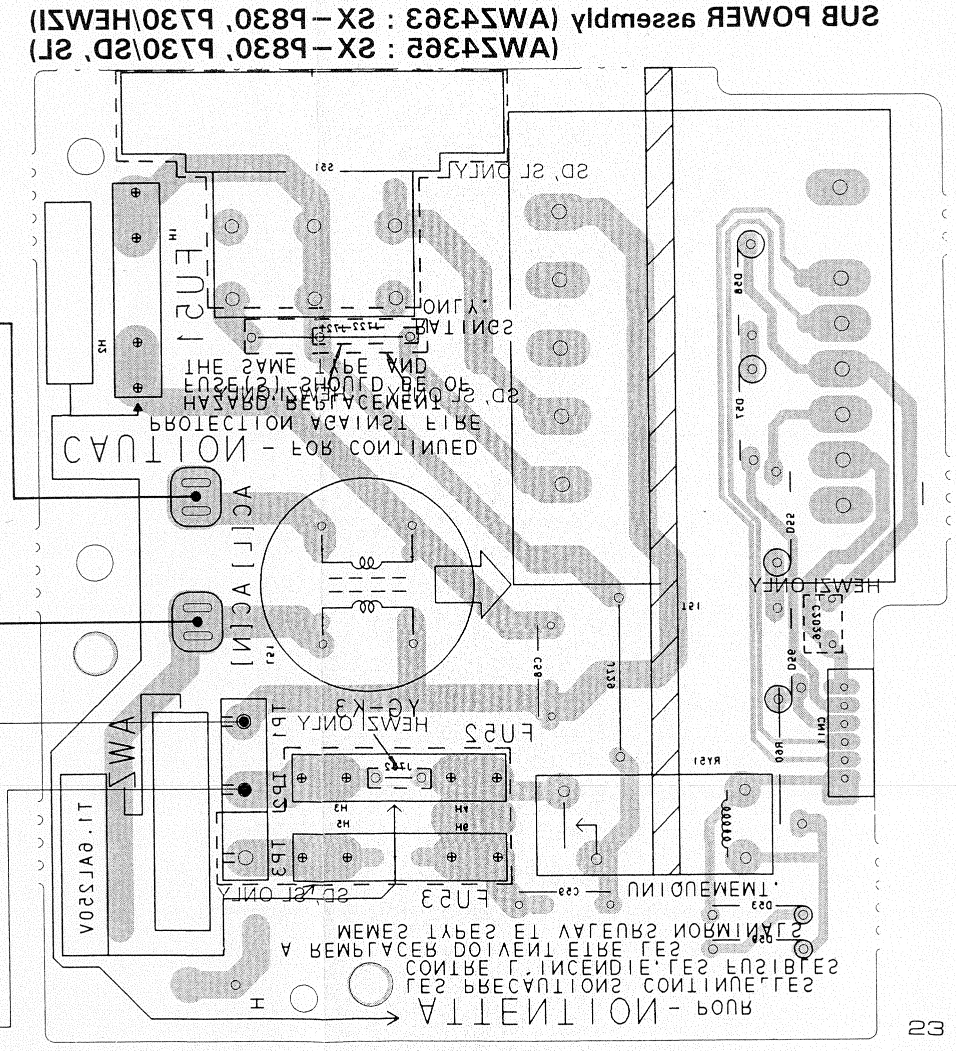

MAIN assembly (AWZ4349 : SX-P830/HEWZI)(AWZ4358 : SX-P730/HE
(AWZ4351 : SX-P830/SD, SL)(AWZ4359 : SX-P730/S
SD, SL ONLY
HEWZI ONLY
SX-P830/HEWZI ONLY
WHITE
SX-P830 ONLY
SX-P730
YG-K3
ANP1607D
LOCAL
STEREO
MONO
MUTE
TUNED
+12V
Q54
Q52
D710
D103
D105
Q1001
D104
Q1002
D1002
D102
D1001
Q51
Q53
IC402
D52
D54
IC51
D51
D107
D401
D106
IC403
IC114
IC401
IC404
Q154
Q153
D116
Q155
D117
D123
IC405
D101
D122
Q401
Q405
Q158
Q161
D120
D702
D121
D701
Q101
Q102
IC701
D118
D709


SD, SL ONLY
MIC assembly
YG-K3


SD, SL TYPES ONLY
A
AC POWER CORD
AC 110V/120-127V
(120V for SL type)/
230V/240V
50/60Hz
To CONNECTOR assembly
T1
POWER TRANSFORMER
S1 VOLTAGE SELECTOR
CAUTION - FOR CONTINUED PROTECTION AGAINST FIRE HAZARD REPLACEMENT FUSE(S) SHOULD BE OF THE SAME TYPE AND RATINGS
AC[L]
AC[N]
TP1
TP2
TP3
SWA
B
H


HEAD P. assembly
SWZ
YG-K3
HEWZI ONLY

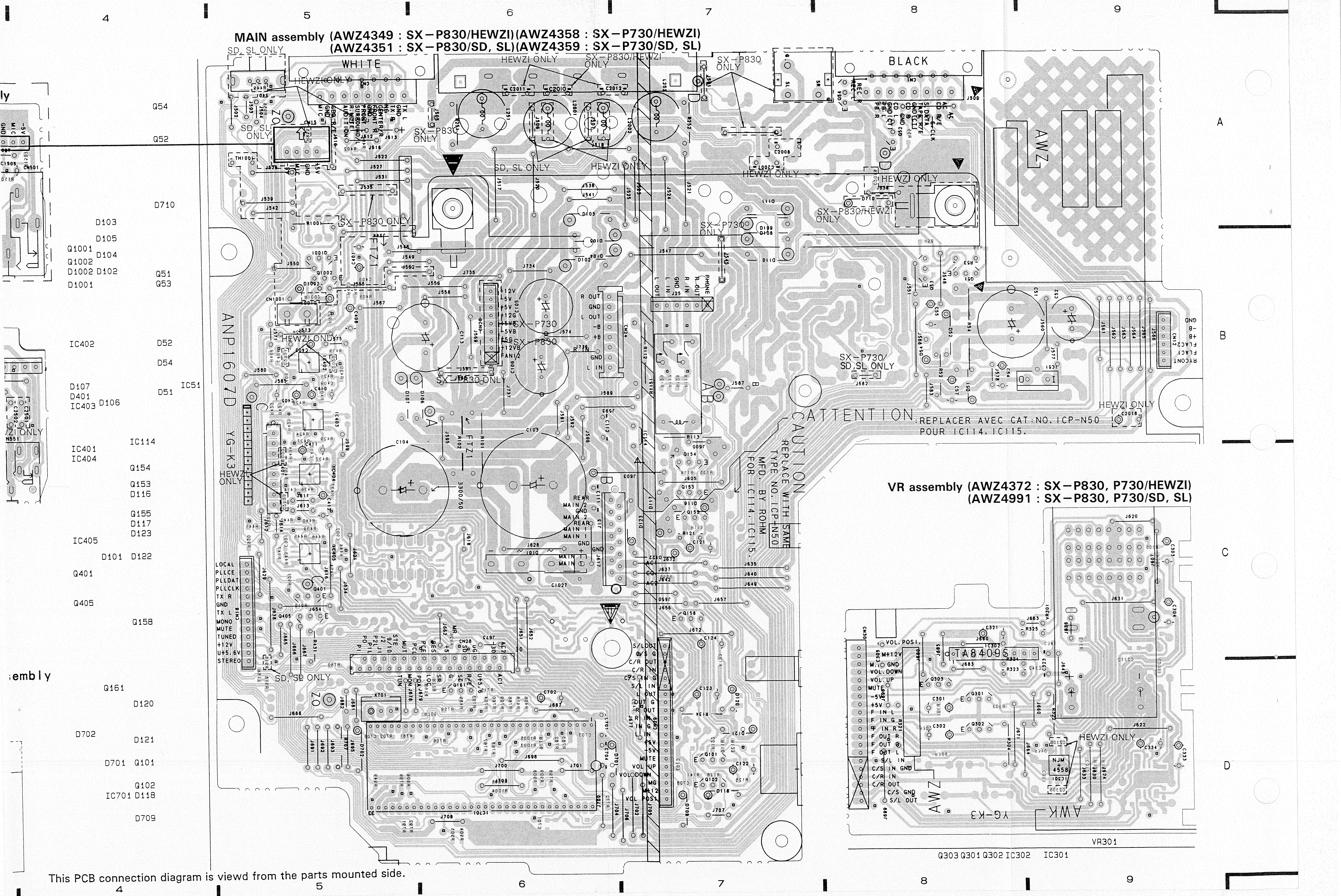

AC POWER CORD
AC 220-230V/240V
50/60Hz
To CONNECTOR assembly
T1
POWER TRANSFORMER
240V
220-230V
0V


SUB POWER assembly (AWZ4363 : SX-P830, P730/HEWZI)
(AWZ4365 : SX-P830, P730/SD, SL)
SD, SL ONLY
CAUTION - FOR CONTINUED PROTECTION AGAINST FIRE HAZARD REPLACEMENT FUSE(S) SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
ATTENTION - POUR LES PRECAUTIONS CONTINUELES CONTRE L'INCENDIE LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEMES TYPES ET VALEURS NORMINALS UNIQUEMENT.
FU51
FU52
FU53
HEWZI ONLY
YG-K3
AC[L]
AC[N]
TP1
TP2
TP3
SWA
C
D

This PCB connection diagram is viwed from the foil side.

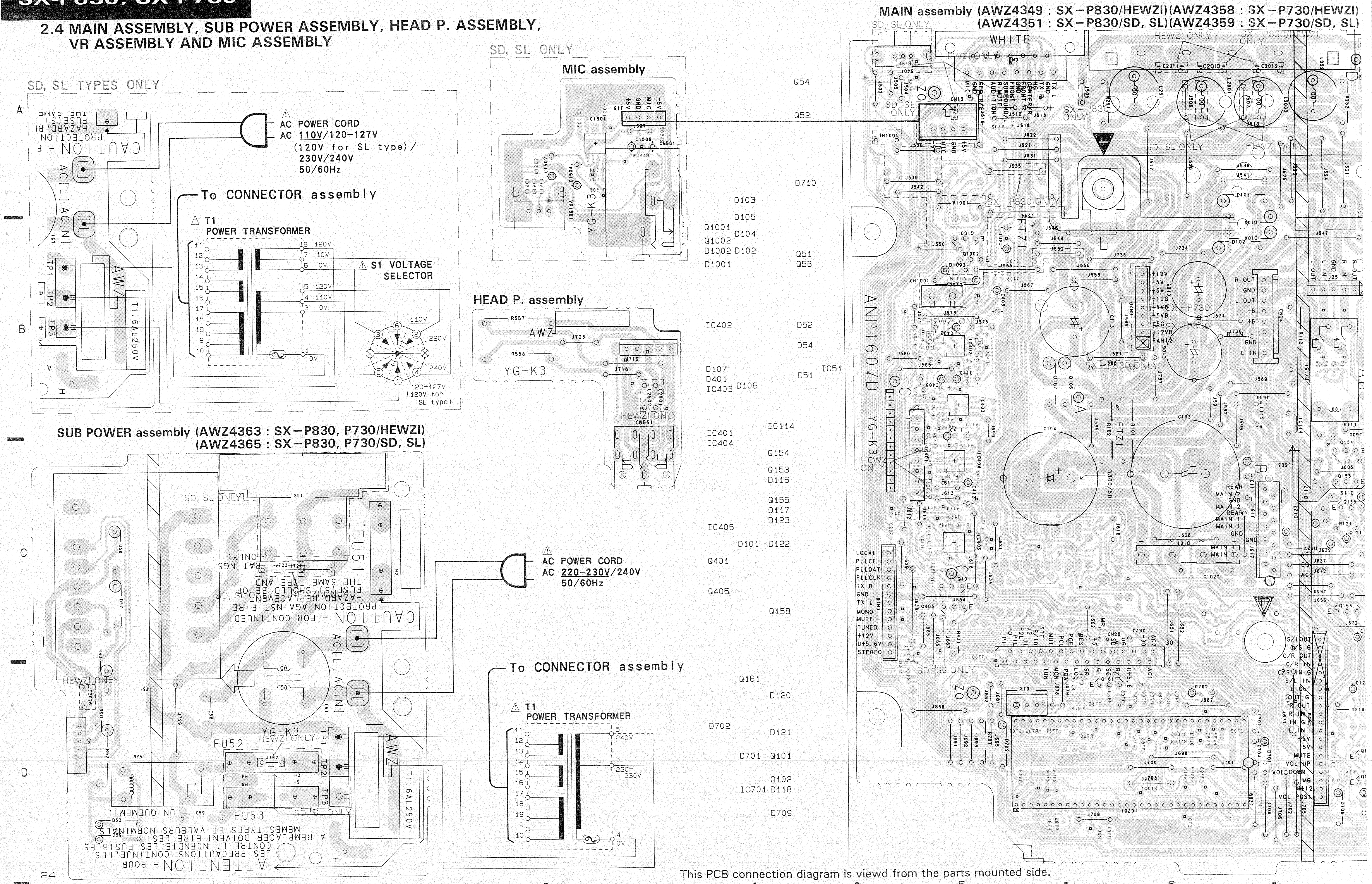
MAIN assembly (AWZ4349 : SX−P830/HEWZI)(AWZ4358 : SX−P730/HEWZI)
(AWZ4351 : SX−P830/SD, SL)(AWZ4359 : SX−P730/SD, SL)

VR assembly (AWZ4372 : SX−P830, P730/HEWZI)
(AWZ4991 : SX−P830, P730/SD, SL)


4
5
6
7
8
9
A
B
C
D
ly
sembly
Q54
Q52
D710
D103
D105
Q1001
D104
Q1002
D1002 D102
D1001
Q51
Q53
IC402
D52
D54
D107
D401
IC403 D106
D51
IC51
IC401
IC404
IC114
Q154
Q153
D116
Q155
D117
D123
IC405
D101 D122
Q401
Q405
Q158
Q161
D120
D702
D121
D701 Q101
Q102
IC701 D118
D709
WHITE
BLACK
SD, SL ONLY
HEWZI ONLY
SX−P830 ONLY
SX−P830/HEWZI ONLY
SX−P730 ONLY
SX−P730/SD, SL ONLY
SD, SL ONLY
ANP1607D
YG-K3
AWZ
AWK
ATTENTION: REPLACER AVEC CAT: NO. ICP-N50 POUR IC114, IC115.
CAUTION REPLACE WITH SAME TYPE NO. ICP-N50 MFD. BY ROHM FOR IC114, IC115
FTZ1
3300/50
TA8409S
NJM 4558
VR301
Q303 Q301 Q302 IC302 IC301

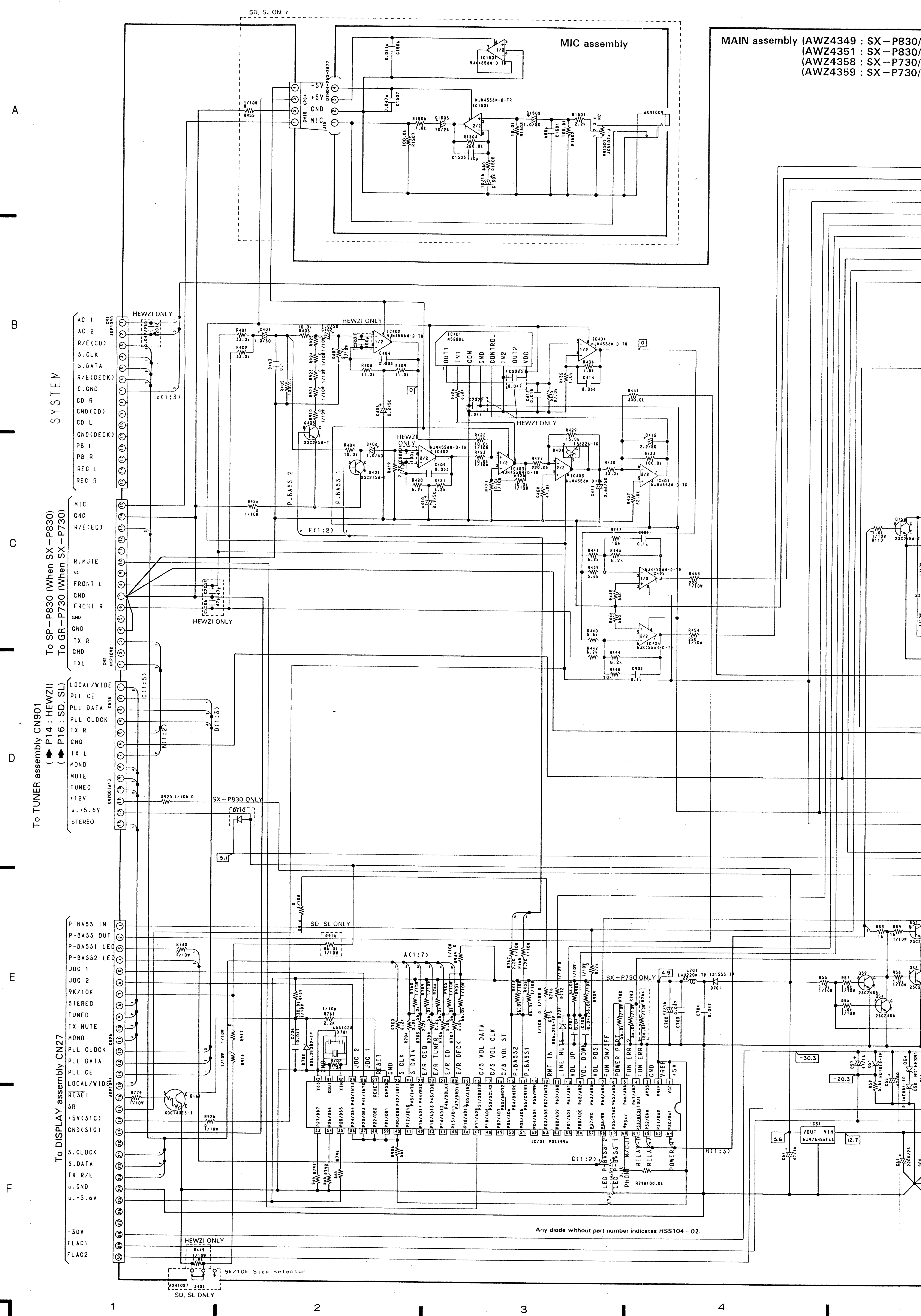
This PCB connection diagram is viewd from the parts mounted side.

2.4 MAIN ASSEMBLY, SUB POWER ASSEMBLY, HEAD P. ASSEMBLY, VR ASSEMBLY AND MIC ASSEMBLY

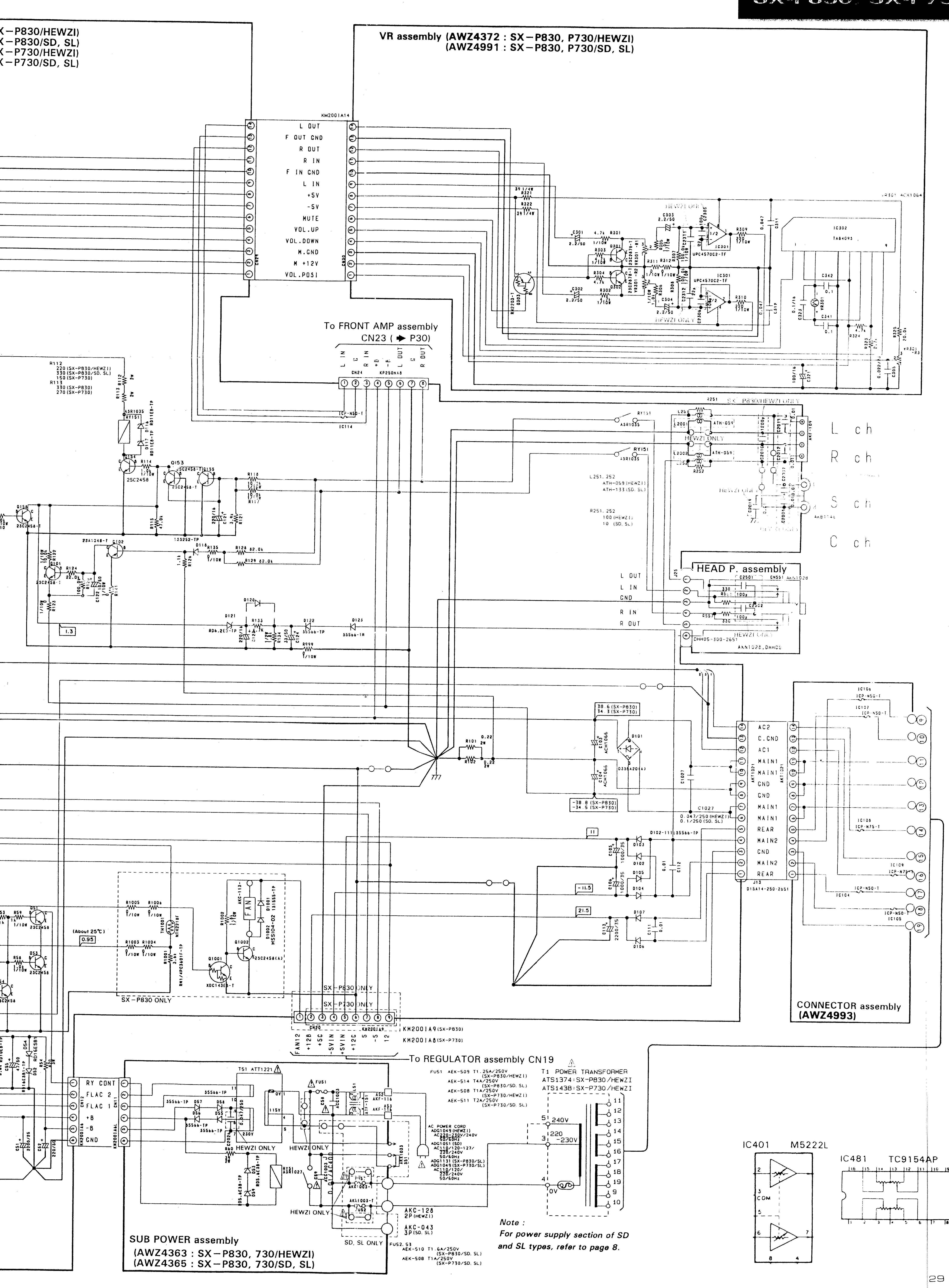

SD, SL TYPES ONLY
AC POWER CORD
AC 110V/120-127V
(120V for SL type)/
230V/240V
50/60Hz
To CONNECTOR assembly
T1
POWER TRANSFORMER
S1 VOLTAGE SELECTOR
110V
220V
240V
120-127V
(120V for SL type)
T1.6AL250V
AWZ
SD, SL ONLY
MIC assembly
YG-K3
HEAD P. assembly
AWZ
YG-K3
HEWZI ONLY
SUB POWER assembly (AWZ4363 : SX-P830, P730/HEWZI)
(AWZ4365 : SX-P830, P730/SD, SL)
FU51
FU52
FU53
AC POWER CORD
AC 220-230V/240V
50/60Hz
To CONNECTOR assembly
T1
POWER TRANSFORMER
240V
220-230V
0V
MAIN assembly (AWZ4349 : SX-P830/HEWZI)(AWZ4358 : SX-P730/HEWZI)
(AWZ4351 : SX-P830/SD, SL)(AWZ4359 : SX-P730/SD, SL)
WHITE
HEWZI ONLY
SX-P830/HEWZI ONLY
SX-P830 ONLY
SX-P730
ANP1607D YG-K3
FTZ1
3300/50
Q54
Q52
D710
D103
D105
Q1001
Q1002
D104
D1002
D102
D1001
Q51
Q53
IC402
D52
D54
D107
D401
IC403
D106
D51
IC51
IC114
IC401
IC404
Q154
Q153
D116
Q155
D117
D123
IC405
D101
D122
Q401
Q405
Q158
Q161
D120
D702
D121
D701
Q101
Q102
IC701
D118
D709

This PCB connection diagram is viewd from the parts mounted side.

MAIN assembly (AWZ4349 : SX−P830/
(AWZ4351 : SX−P830/
(AWZ4358 : SX−P730/
(AWZ4359 : SX−P730/



1
2
3
4
A
B
C
D
E
F
SD, SL ONLY
MIC assembly
IC1501 NJM4558M-D-TR
CN15 XKP4
J15 DYH04-250-0877
−5V
+5V
GND
MIC
R955 1/10W
R1506 1.0k
C1505 10/25
R1504 220.0k
R1503 10.0k
C1502 1.0/50
R1501 2.2k
R1502 100.0k
C1501 680p
VR1501
AKN1009
C1503 470p
C1504 10/16
R1505 680
C1506 0.047μ
C1507 0.047μ
R1507 100.0k
SYSTEM
CN1 AKP1090
AC 1
AC 2
R/E(CD)
S.CLK
S.DATA
R/E(DECK)
C.GND
CD R
GND(CD)
CD L
GND(DECK)
PB L
PB R
REC L
REC R
HEWZI ONLY
x(1:3)
To SP−P830 (When SX−P830)
To GR−P730 (When SX−P730)
MIC
GND
R/E(EQ)
R.MUTE
NC
FRONT L
GND
FRONT R
GND
GND
TX R
GND
TXL
CN2 AKP1092
HEWZI ONLY
To TUNER assembly CN901
(P14 : HEWZI)
(P16 : SD, SL)
LOCAL/WIDE
PLL CE
PLL DATA
PLL CLOCK
TX R
GND
TX L
MONO
MUTE
TUNED
+12V
u.+5.6V
STEREO
CN18 / KM200IA13
C(1:5)
D(1:3)
B(1:2)
R920 1/10W 0
SX−P830 ONLY
D710
5.1
R401 33.0k
C401 1.0/50
R402 33.0k
R403 10.0k
C402 1.0/50
HEWZI ONLY
IC402 NJM4558M-D-TR
C403 0.1
C404 0.033
R408 11.0k
R409 11.0k
R405 100.0k
Q405 2SC2458-I
R404 10.0k
C406 1.0/50
Q401 2SC2458-I
C405 2.2/50
HEWZI ONLY
R420 6.8k
R421 6.8k
C409 0.033
P.BASS 2
P.BASS 1
R956 1/10W 0
F(1:2)
IC401 M5222L
OUT1
IN1
COM
GND
CONTROL
IN2
OUT2
VDD
C2023
0.047
C413 0.018
C2022
.047
HEWZI ONLY
IC404 NJM4558M-D-TR
R436 1.5k
C414 0.068
R431 330.0k
R422
R423
IC403
R427 220.0k
R429 15.0k
D401 1SS226-TR
IC403 NJM4558M-D-TR
R430 33.0k
C412 2.2/50
R433 100.0k
IC404 NJM4558M-D-TR
C411 0.68/50
R432 82.0k
R447 10k
C401 0.1μ
R441 6.2k
R443 8.2k
R439 5.6k
IC405 NJM4558M-D-TR
R453 220 1/10W
R445 560
R446 560
R440 5.6k
R442 6.2k
R444 8.2k
R448 10k
C402 0.1μ
IC405 NJM4558M-D-TR
R454 220 1/10W
To DISPLAY assembly CN27
CN28 AKP1094
P-BASS IN
P-BASS OUT
P-BASS1 LED
P-BASS2 LED
JOG 1
JOG 2
9K/10K
STEREO
TUNED
TX MUTE
MONO
PLL CLOCK
PLL DATA
PLL CE
LOCAL/WIDE
RESET
SR
+5V(SIC)
GND(SIC)
S.CLOCK
S.DATA
TX R/E
u.GND
u.+5.6V
−30V
FLAC1
FLAC2
R780 1/10W
R779 1/10W
Q161 XDC143ES-T
R926 1/10W
R917
R916
SD, SL ONLY
R916 56.0k 1/10W
A(1:7)
X701 ASS1025
R781 2.2k
R702
D702
C706 0.047
IC701 PD5199A
VSS
XOUT
XIN
JOG 2
JOG 1
RESET
GND
S CLK
S DATA
E/R CEO
E/R TUNER
E/R CD
E/R DECK
C/S VOL DATA
C/S VOL CLK
C/S VOL ST
P.BASS2
P.BASS1
RMT IN
LINE MUTE
VOL UP
VOL DOWN
VOL POS
FUN ON/OFF
POWER P.OUT
FUN ERR
FUN ERR
GND
VREF
+5V
SX−P730 ONLY
4.9
L701 LAU220K-TP
1SS355 TP
D701
C704 0.047
C702
C703
C(1:2)
H(1:3)
LED P.BASS 2
LED P.BASS 1
PHONE IN/OUT
RELAY ON
RELAY
POWER
R798 100.0k
Any diode without part number indicates HSS104−02.
HEWZI ONLY
R449 1/10W
9k/10k Step selector
ASH1027 S401
SD, SL ONLY
Q158 2SC2458
R110
R53 1k
R59 1/10W
R55 1/10W
R57
Q52 2SC2458
R56
Q53
R54
Q54 2SC2458
−30.3
−20.3
C57
D51
D54
IC51 NJM78M56FA
VOUT VIN
5.6
12.7
C54 47/16
C51 2200/25

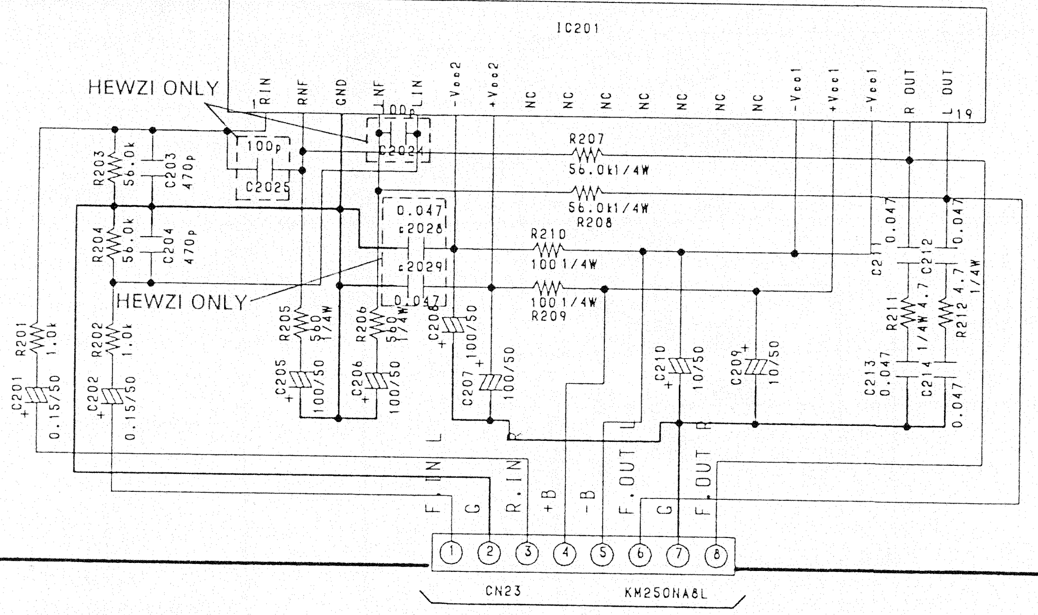

X−P830/HEWZI)
X−P830/SD, SL)
X−P730/HEWZI)
X−P730/SD, SL)
VR assembly (AWZ4372 : SX−P830, P730/HEWZI)
(AWZ4991 : SX−P830, P730/SD, SL)
KM2001A14
L OUT
F OUT GND
R OUT
R IN
F IN GND
L IN
+5V
−5V
MUTE
VOL.UP
VOL.DOWN
M.GND
M +12V
VOL.POSI
CN29
CN30
HEWZI ONLY
IC301 UPC4570C2-TF
IC302 TA8409S
VR301
To FRONT AMP assembly
CN23 (➡ P30)
L IN
C
R IN
+B
−B
L OUT
C
R OUT
CN24 KP250NA8
ICP-N50-T
IC114
R112 220 (SX-P830/HEWZI) 330 (SX-P830/SD, SL) 150 (SX-P730)
R113 330 (SX-P830) 270 (SX-P730)
RY151
ASR1035
2SC2458
Q153
Q155
R251 SX-P830/HEWZI ONLY
ATH-059
AKF-10K
L ch
R ch
S ch
C ch
L251, 252 ATH-059 (HEWZI) ATH-133 (SD, SL)
R251, 252 100 (HEWZI) 10 (SD, SL)
AKB7146
HEAD P. assembly
L OUT
L IN
GND
R IN
R OUT
J25
CN551
AKN1028
DHH05-300-2651
AKN1028, DHH05
2SA1048-T
Q102
Q101
1.3
D120
D121
D122
D123
1SS133
38.6 (SX-P830)
34.3 (SX-P730)
D101
D3SBA20 (A)
ACH1066
−38.8 (SX-P830)
−34.5 (SX-P730)
C1027
0.047/250 (HEWZI)
0.1/250 (SD, SL)
R101 0.22 2W
R102 0.22 2W
AC2
C.GND
AC1
MAIN1
MAIN1
GND
GND
MAIN1
MAIN1
REAR
MAIN2
GND
MAIN2
REAR
AKT1021
J13
D15A14-250-2651
D102-111: 1SS133
11
−11.5
21.5
IC106 ICP-N50-T
IC107 ICP-N50-T
IC108 ICP-N75-T
IC109 ICP-N75-T
IC104
IC105
CONNECTOR assembly
(AWZ4993)
(About 25°C)
0.95
R1005
R1006
R1003
R1004
TH1001
FAN
D1001 1SS133
D1002 HSS104-02
Q1001
Q1002
2SC2458 (A)
XDC143E
SX−P830 ONLY
SX−P830 ONLY
SX−P730 ONLY
CN20
KM2001A9 (SX-P830)
KM2001A8 (SX-P730)
FAN12
+12B
+5C
−5VIN
+5VIN
+12C
5
−5
12
To REGULATOR assembly CN19
RY CONT
FLAC 2
FLAC 1
+B
−B
GND
CN12
CN11
KM2001A6
T51 ATT1221
FUSE
HEWZI ONLY
HEWZI ONLY
SD, SL ONLY
AKC-128 2P (HEWZI)
AKC-043 3P (SD, SL)
FU51 AEK-509 T1.25A/250V (SX-P830/HEWZI)
AEK-514 T4A/250V (SX-P830/SD, SL)
AEK-508 T1A/250V (SX-P730/HEWZI)
AEK-511 T2A/250V (SX-P730/SD, SL)
AC POWER CORD
ADG1049 (HEWZI) AC220−230V/240V 50/60Hz
ADG1051 (SD) AC110/120−127/220/240V 50/60Hz
ADG1131 (SX-P830/SL)
ADG1049 (SX-P730/SL)
AC110/120/220/240V 50/60Hz
FU52, 53 AEK-510 T1.6A/250V (SX-P830/SD, SL)
AEK-508 T1A/250V (SX-P730/SD, SL)
T1 POWER TRANSFORMER
ATS1374: SX-P830/HEWZI
ATS1438: SX-P730/HEWZI
240V
220−230V
0V
SUB POWER assembly
(AWZ4363 : SX−P830, 730/HEWZI)
(AWZ4365 : SX−P830, 730/SD, SL)
IC401 M5222L
COM
IC481 TC9154AP

Note :
For power supply section of SD and SL types, refer to page 8.

2.5 FRONT AMP ASSEMBLY

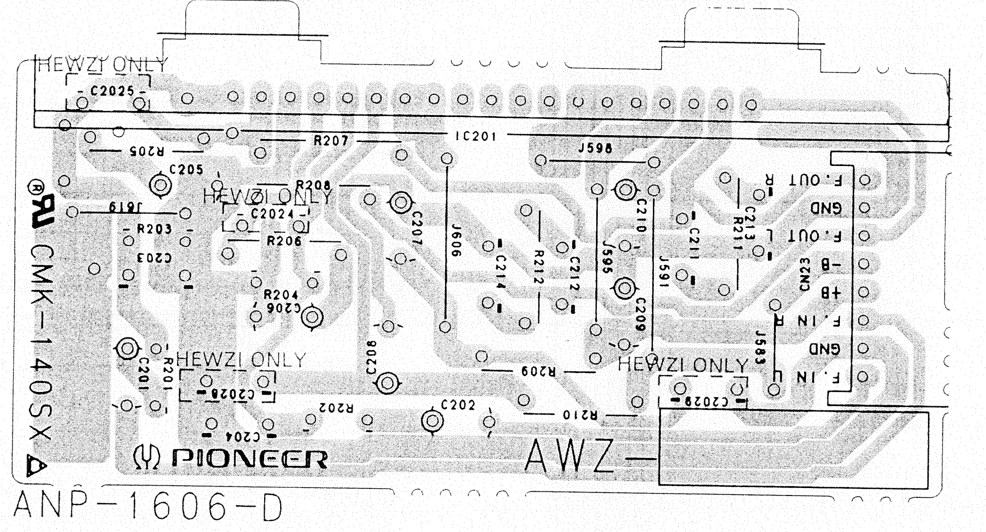
FRONT AMP assembly (AWZ4335 : SX−P830/HEWZI)
(AWZ4336 : SX−P830/SD, SL)
(AWZ4342 : SX−P730/HEWZI)
(AWZ4343 : SX−P730/SD, SL)

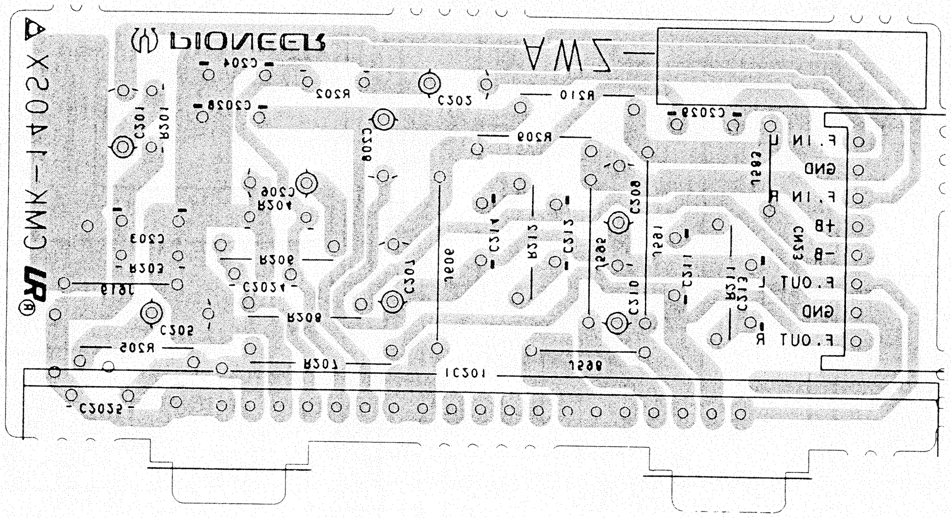
IC201
STK4160-2G (SX-P830/HEWZI)
STK4170-2G (SX-P830/SD, SL)
STK4140-2G (SX-P730)


IC201
R IN
RNF
GND
L NF
L IN
-Vcc2
+Vcc2
NC
-Vcc1
+Vcc1
-Vcc1
R OUT
L OUT
1
19
HEWZI ONLY
100p
C2024
C2025
R203 56.0k
C203 470p
R204 56.0k
C204 470p
0.047
C2028
C2029
HEWZI ONLY
R207 56.0k1/4W
56.0k1/4W R208
R210 100 1/4W
100 1/4W R209
R201 1.0k
R202 1.0k
C201 0.15/50
C202 0.15/50
R205 560 1/4W
R206 560 1/4W
C205 100/50
C206 100/50
C208 100/50
C207 100/50
C210 10/50
C209 10/50
C211 0.047
C212 0.047
R211 4.7 1/4W
R212 4.7 1/4W
C213 0.047
C214 0.047
F.IN L
G
R.IN
+B
-B
F.OUT L
G
F.OUT R
CN23
KM250NA8L

To MAIN assembly CN24 (➜ P28)

FRONT AMP assembly (AWZ4335 : SX−P830/HEWZI)
(AWZ4336 : SX−P830/SD, SL)
(AWZ4342 : SX−P730/HEWZI)
(AWZ4343 : SX−P730/SD, SL)


HEWZI ONLY
C2025
IC201
J598
R207
R205
C205
R208
HEWZI ONLY
C2024
R203
R206
C203
J606
R204
C206
HEWZI ONLY
C2028
C2029
R201
C201
R202
C202
C204
R209
R210
F.OUT R
GND
F.OUT L
-B
+B
F.IN
GND
F.IN
CN23
CMK-140SX
PIONEER
AWZ
ANP-1606-D


PIONEER
AWZ
CMK-140SX
C3025
IC301

3. ADJUSTMENTS

3.1 ADJUSTMENT OF THE FM TUNER SECTION

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 3−1.

Step No.	Adjustment title	FM SG (1kHz±75kHz dev.)		Reception frequency display	Adjustment location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Center adjustment	98	80	98.0MHz	L907	Adjust so that the DC voltage between the TP901 (Vref) and TP902 (T−meter) becomes 0V±50mV.
2	VCO adjustment	Non modulation	80	98.0MHz	VR903	Adjust so that the output of the TP905 (VCO) becomes 76kHz±0.5kHz.
3	TUNED IND. Lighting level	98 *1 (Stereo modulation)	18 (±3dB)	98.0MHz	VR902	Adjust so that the indicators of TUNED, STEREO IND. start to light up.

Note :

Perform steps 1 and 3 when the 2 serial F. E. module assembly is replaced. Confirm VCO (step 2) and adjust if improper.

*1 Stereo modulation : Main 1kHz L+R ±68.25kHz dev.
Pilot 19kHz ±6.75kHz dev.

3.2 ADJUSTMENT OF AM (MW) TUNER SECTION

- Set the mode selector to AM (MW) BAND.
- Connect the wiring as shown in Fig. 3−2.

Step No.	Adjustment title	AM SG (400Hz 30% Mod.)		Reception frequency display	Adjustment location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	Tracking adjustment *1	603	Feeble input	603kHz	AM RF Tuning block antenna coil	Adjust so that the DC voltage between the TP904 (S-meter) and GND becomes at maximum level.
		1395		1395kHz	TC901	
2	IFT adjustment *1	603		603kHz	F904	
3	TUNED IND. Lighting level	999 *2	55 (±5dB)	999kHz *2	VR901	Adjust so that the indicators of TUNED IND. start to light up.

Note 1 :

*Adjustment marked with " *1 " is only for HEWZI.*

Note 2 :

Frequencies indicated in the above table are for the area using 9kHz step (HEWZI, SD/SL : 9k step). For the area using 10kHz step (SD, SL : 10kHz), frequencies should be as follows :

**2 : 1000kHz*

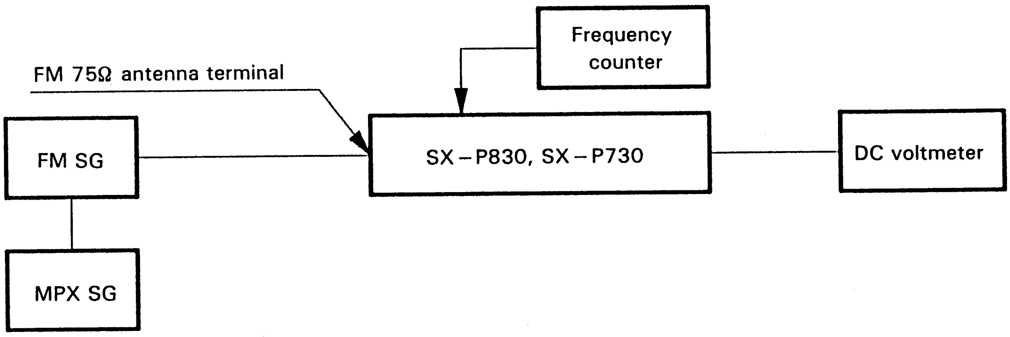

Frequency counter
FM 75Ω antenna terminal
FM SG
SX-P830, SX-P730
DC voltmeter
MPX SG

Fig. 3-1 FM Adjustment Connection Diagram

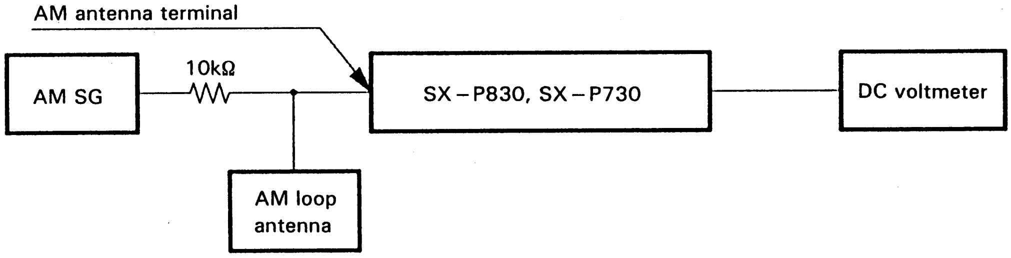

AM antenna terminal
AM SG
10kΩ
SX-P830, SX-P730
DC voltmeter
AM loop antenna

Fig. 3-2 AM (MW) Adjustment Connection Diagram

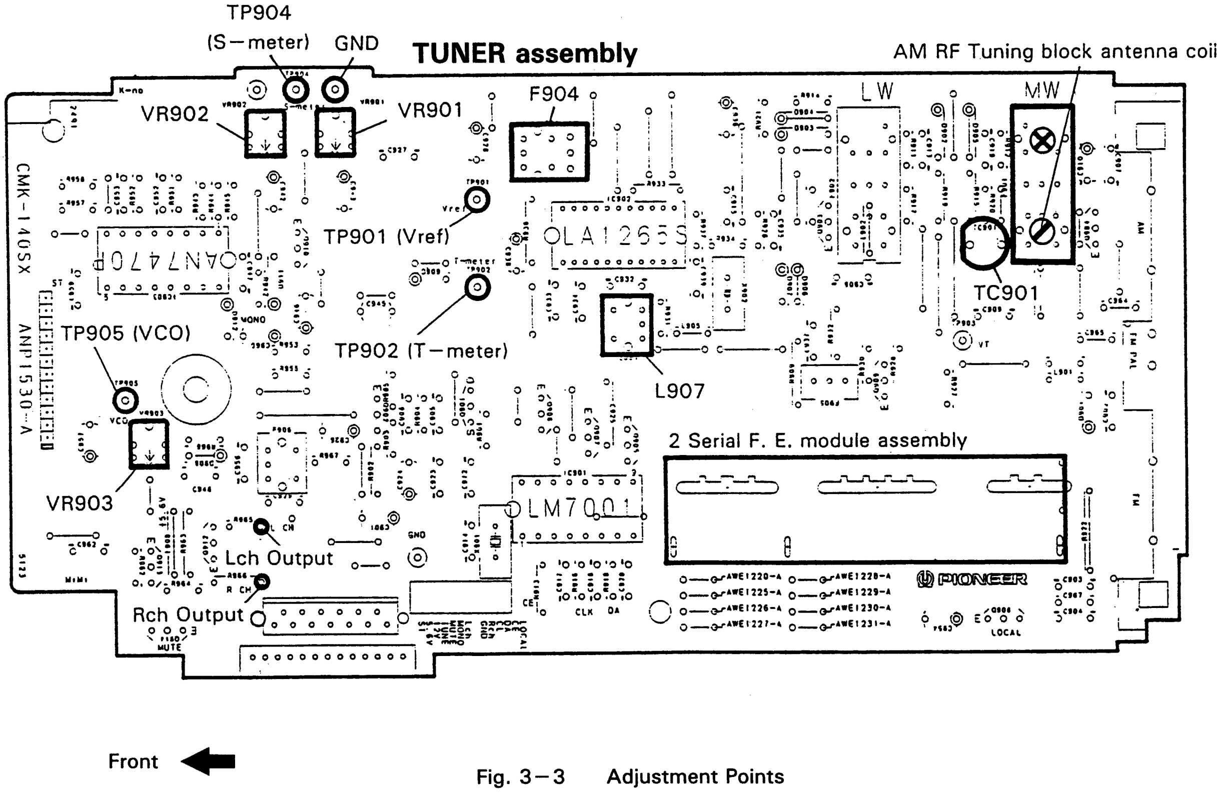
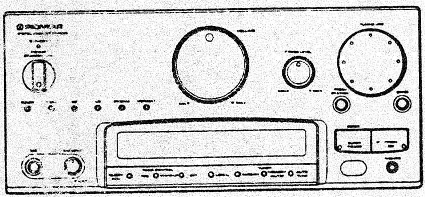

TP904
(S-meter)
GND
TUNER assembly
AM RF Tuning block antenna coil
VR902
VR901
F904
LW
MW
CMK-140SX
ANP1530-A
AN7470P
LA1265S
TP901 (Vref)
TP902 (T-meter)
TC901
TP905 (VCO)
L907
VR903
2 Serial F. E. module assembly
LM7001
Lch Output
Rch Output
PIONEER
Front

Fig. 3-3 Adjustment Points

PIONEER®

The Art of Entertainment

Service Manual



ORDER NO.
ARP2630

STEREO RECEIVER

SX-P830

SX-P730

SX−P830 AND SX−P730 HAVE THE FOLLOWING :

Type	Model		Power Requirement	Remarks
	SX−P830	SX−P730		
HE	○	○	AC220V−230V, 240V (Switchable)*	
HB	○	○	AC220V−230V, 240V (Switchable)*	
HEWZI	○	○	AC220V−230V, 240V (Switchable)*	
SD	○	○	AC110V, 120−127V, 220V, 240V (Switchable)	
SL	○	○	AC110V, 120V, 220V, 240V (Switchable)	

* Change the connection of the power transformer's primary wiring.

- This manual is applicable to the following : SX−P830/HE and HB ; SX−P730/HE and HB.
- For the following : SX−P830/HB ; SX−P730/HB, refer to page 43.
- For the following : SX−P830/HEWZI, SD and SL ; SX−P730/HEWZI, SD and SL, refer to the service manual ARP2631 for SX−P830 and SX−P730.
- These products are systems components.
  Each of these products does not function properly when independent ; to avoid malfunctions, be sure to connect it to the prescribed system component (s), otherwise damage may result.
  These product's accessories etc. are packed with their related component (s).

CONTENTS

1. SPECIFICATIONS 2
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4. BLOCK DIAGRAM 8
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PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, California 90801 U.S.A.
PIONEER ELECTRONICS OF CANADA, INC. 300 Allstate Parkway, Markham, Ontario L3R 0P2 Canada
PIONEER ELECTRONIC [EUROPE] N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911
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DFG DEC. 1992 Printed in Japan

1. SPECIFICATIONS

STEREO RECEIVER: SX-P830

Amplifier Section

<For Multivoltage model>

Continuously Average Power Output is 40 Watts* per channel, min., at 8 ohms from 40 Hertz to 17,000 Hertz, with no more than 0.9% total harmonic distortion

> * Measured pursuant to the Federal Trade Commission's Trade Regulation rules on Power Output Claims for Amplifiers

Continuous power output (DIN)
U.K., European models .... 42 W + 42 W
(1 kHz, T.H.D 1%, 8 ohms)
Continuous power output (RMS)
U.K., European models .... 50 W + 50 W
(1 kHz, T.H.D 5%, 8 ohms)
Multivoltage models .... 57 W + 57 W
Music power (DIN) (1 kHz, T.H.D 1%, 8 ohms)
U.K., European models .... 65 W + 65 W
Multivoltage models .... 75 W + 75 W
Peak music power
(Multivoltage models only) .... 375 W
Total harmonic distortion,
1 kHz, 25 W, 8 ohms .... 0.1 % **

- *European models:*
  Above specifications are for when power supply is 230 V.

Electrical Section, Other

Power requirements
U.K. models .... AC 240 V, 50/60 Hz
European models .... AC 220-230 V, 50/60 Hz
Multivoltage models .... AC 110/120−127/
220/240 V (switchable), 50/60 Hz
Power consumption
U.K. models .... 285 W
European models .... 285 W
Multivoltage models .... 295 W
External dimensions ....
260 (W) × 117 (H) × 264 (D) mm
Weight
U.K., European models .... 4.9 kg
Multivoltage models .... 5.1 kg

** Measured with audio spectrum analyzer.

STEREO RECEIVER: SX-P730

Amplifier Section

<For Multivoltage model>

Continuously Average Power Output is 25 Watts* per channel, min., at 8 ohms from 40 Hertz to 20,000 Hertz, with no more than 0.9% total harmonic distortion

> * Measured pursuant to the Federal Trade Commission's Trade Regulation rules on Power Output Claims for Amplifiers

Continuous power output (DIN)
U.K., European models .... 28 W + 28 W
(1 kHz, T.H.D 1%, 8 ohms)
Continuous power output (RMS)
U.K., European models .... 36 W + 36 W
(1 kHz, T.H.D 5%, 8 ohms)
Multivoltage models .... 36 W + 36 W
Music power (DIN)
(1 kHz, T.H.D 1%, 8 ohms) .... 50 W + 50 W
Peak music power
(Multivoltage models only) .... 275 W
Total harmonic distortion,
1 kHz, 20 W, 8 ohms .... 0.1 % **

- *European models:*
  Above specifications are for when power supply is 230 V.

Electrical Section, Other

Power requirements
U.K. models .... AC 240 V, 50/60 Hz
European models .... AC 220-230 V, 50/60 Hz
Multivoltage models .... AC 110/120−127/
220/240 V (switchable), 50/60 Hz
Power consumption .... 195 W
External dimensions ....
260 (W) × 117 (H) × 264 (D) mm
Weight
U.K., European models .... 4.4 kg
Multivoltage models .... 4.6 kg

** Measured with audio spectrum analyzer.

SX-P830/SX-P730

FM Tuner Section

Reception frequency range .... 87.5−108.0 MHz
Usable Sensitivity .... MONO: 12.8 dBf, IHF
(1.2 μV/75 ohms)
Sensitivity (DIN)
MONO (S/N 26 dB) .... 1 μV/75 ohms
STEREO (S/N 46 dB) .... 50 μV/75 ohms
Signal-to-Noise Ratio
(IHF, 85 dBf Input) .... MONO: 77 dB
Signal-to-Noise Ratio (DIN) .... MONO: 66 dB
STEREO: 60 dB
Distortion .... STEREO: 0.5%, 1 kHz
Antenna input .... 75 ohms unbalanced

AM Tuner Section

Frequency range
U.K., European models .... 531 kHz to 1,602 kHz
Multivoltage model .... 531 kHz to 1,602 kHz
(9 kHz step)
530 kHz to 1,700 kHz
(10 kHz step)
Sensitivity (IHF, Loop antenna) .... 350 μV/m
Antenna .... Loop Antenna

NOTE:
The specifications and design of this product are subject to change without notice, due to improvements.

2. PANEL FACILITIES

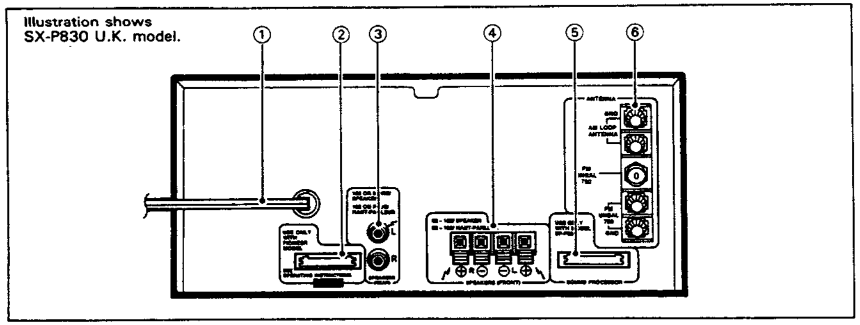


Illustration shows
SX-P830 U.K. model.

① **Power cord**
Connect this to the AC wall socket.

② **SYSTEM jack**
Connect the system cable here.

③ **SPEAKERS (REAR) jack (SX-P830 only)**
Connect the surround speaker systems.

NOTE:
Connect a speaker system with a nominal impedance of 16Ω or more.

④ **SPEAKERS (FRONT) terminals**

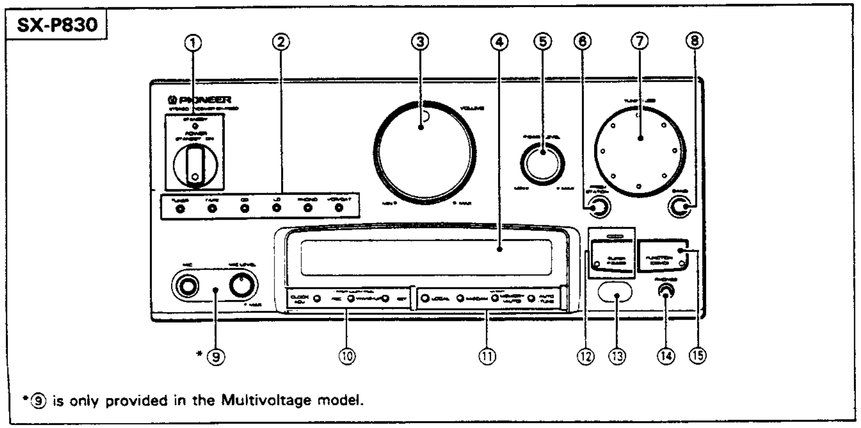
L: Connect the left speaker system as seen from the listening position.

R: Connect the right speaker system as seen from the listening position.

NOTE:
Connect a speaker system with a nominal impedance ranging from 8Ω to 16Ω.

⑤ **SOUND PROCESSOR jack SX-P830**
SOUND CONTROLLER jack SX-P730
Connect the SOUND FIELD PROCESSOR (or SOUND IMAGE CONTROLLER) system cable here.

⑥ **FM/AM ANTENNA terminals**
Antennas must be connected to these terminals: otherwise station reception is not possible.



•⑨ is only provided in the Multivoltage model.

① **POWER STANDBY/ON switch, STANDBY indicator**
This is the switch for electric power.

ON:	When set to the ON position, power is supplied and the unit becomes operational.
STANDBY:	When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness. The STANDBY indicator lights and the receiver section display indicates only the time.

② **Function indicators**
(TUNER, TAPE, CD, LD, PHONO, VCR/DAT)
These indicators are selected by the FUNCTION button.

③ **VOLUME control**

④ **Display**

⑤ **P.BASS LEVEL control**
P.BASS stands for Proper Bass Active Supply System, and refers to the built-in system for emphasizing low sound ranges.
This unit is equipped with the super P.BASS to allow you to select two kinds of bass reproduction, depending on the kind of music source and your own preference. This knob can be used to adjust the super P.BASS level when the SUPER P.BASS button is set to ON.

⑥ **FREQ/STATION button**
Use to select the display mode (frequency mode or station mode).

- **Frequency mode:** Display indicates the frequency of the tuned station, and the current time.
- **Station mode:** Display indicates the frequency of the tuned station together with the recorded station number assigned to that station.

⑦ **TUNING JOG control**
Use to set the time and tune the receiver's reception frequency.

⑧ **BAND button**
Use to select FM or AM bands.

⑨ **MIC (microphone) jack and MIC LEVEL (microphone level) control**
[on Multivoltage model only]

⑩ **TIMER CONTROL buttons**
(CLOCK ADJ, REC, WAKE-UP, SET)
Use these buttons to set the current clock time and the timer for timed recording and playback.

⑪ **TUNER buttons**

- **LOCAL button:** Set to ON when receiving very nearby stations (the strong signals may otherwise produce high levels of static).
- **M.SCAN (memory scan) button:** Automatically scans (for about five seconds each) each of the stations stored in the station memory.
- **MEMORY (AUTO) button:** Use to save broadcasting stations in the station memory.
- **AUTO-TUNE button:** If this button is set ON, the frequency changes automatically and the tuning stops at the first station that is received.

⑫ **SUPER P.BASS button/indicator**
Use this button to select from among the two types of super P.BASS effect desired, then use the P.BASS level control to adjust the level as desired.
The indicator changes as follows each time the button is pressed:
┌→ orange → red → off ┐
└─────────────────┘

⑬ **Remote sensor window**

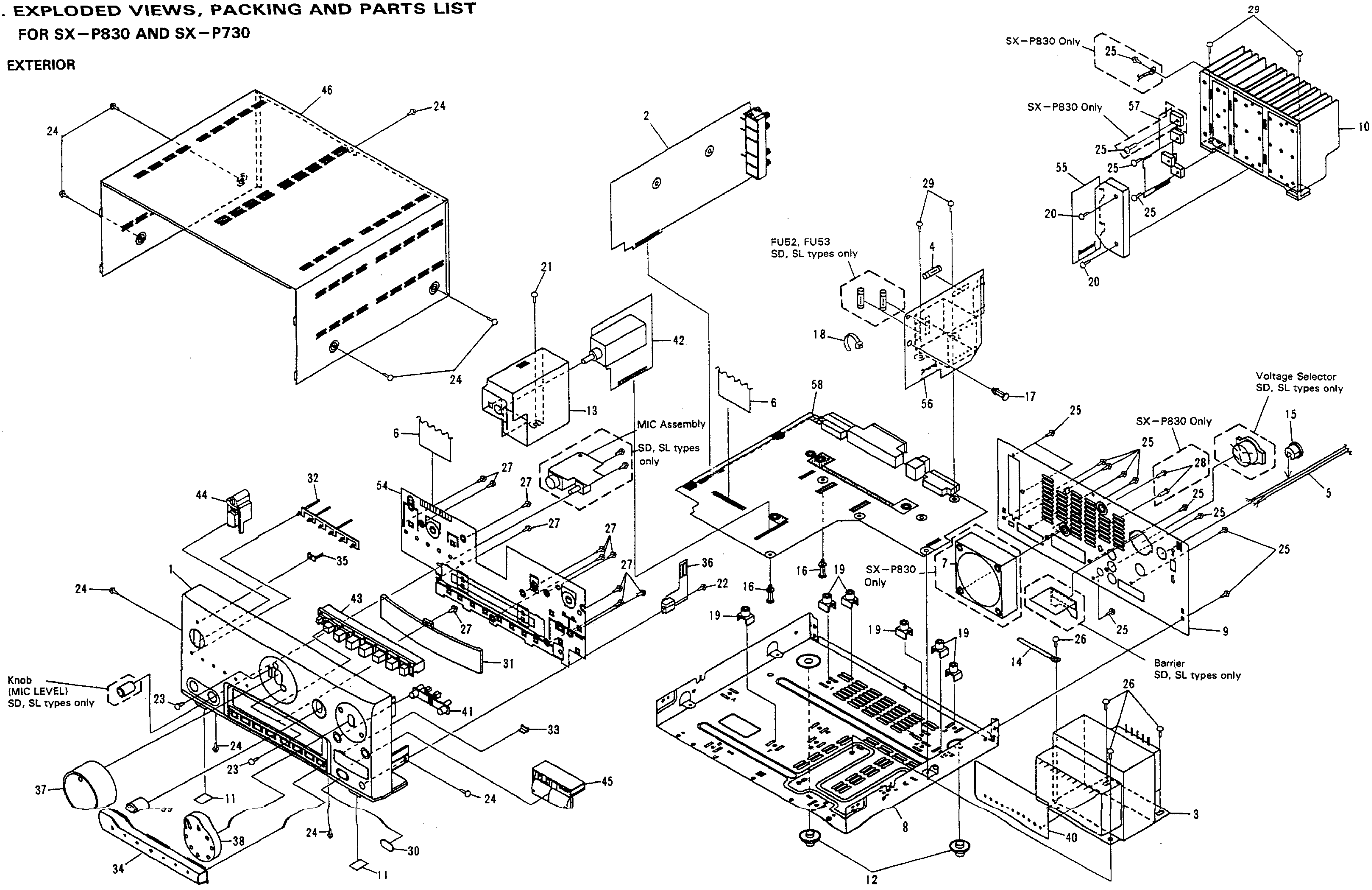
⑭ **Headphone jack (PHONES)**

⑮ **FUNCTION (DEMO) button**
Use this button to select the desired source.
The settings change as follows each time this button is pressed.
┌→ TUNER → TAPE → CD → LD ┐
└ VCR/DAT ← PHONO ←──────┘

3. EXPLODED VIEWS, PACKING AND PARTS LIST

FOR SX−P830 AND SX−P730

- **EXTERIOR**


46
24
24
24
24
2
21
42
13
6
6
MIC Assembly
SD, SL types only
54
27
27
27
27
27
27
32
44
35
1
24
43
31
41
33
45
24
36
22
Knob
(MIC LEVEL)
SD, SL types only
23
24
23
11
37
39
38
34
24
30
11
58
16
16
19
19
19
19
SX−P830 Only
7
8
12
FU52, FU53
SD, SL types only
18
29
4
56
17
SX−P830 Only
25
SX−P830 Only
57
25
25
55
20
20
25
29
10
25
25
SX−P830 Only
28
25
25
25
25
Voltage Selector
SD, SL types only
15
5
9
14
26
Barrier
SD, SL types only
26
3
40

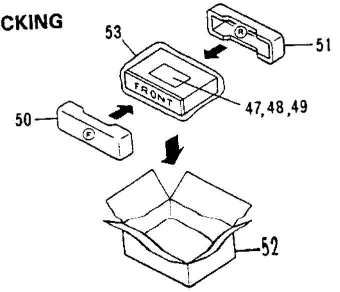
NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Parts list of Exterior and Packing

Mark	No.	Description	Parts No.
	1	FRONT PANEL (For SX–P830)	AMB2042
		FRONT PANEL (For SX–P730)	AMB2044
	2	TUNER ASSEMBLY	AWE1261
⚠	3	POWER TRANSFORMER (T1) (For SX–P830)	ATS1374
⚠		POWER TRANSFORMER (T1) (For SX–P730)	ATS1438
⚠	4	FUSE (T1.25A/250V, FU51) (For SX–P830)	AEK–509
⚠		FUSE (T1A/250V, FU51) (For SX–P730)	AEK–508
⚠	5	AC POWER CORD	ADG1049
	6	CABLE (J27)	ADD1100
⚠	7	FAN MOTOR (SX–P830 only)	AXM1013
NSP	8	CHASSIS	ANA1155
NSP	9	REAR PANEL (For SX–P830)	ANC1939
NSP		REAR PANEL (For SX–P730)	ANC1944
NSP	10	HEAT SINK (For SX–P830)	ANH1352
NSP		HEAT SINK (For SX–P730)	ANH1437
	11	STOPPER	AEB1111
	12	LEG ASSEMBLY	REC–434
NSP	13	SHIELD BOX	ANK1179
NSP	14	BINDER	AEC–826
	15	STRAIN RELIEF	AEC–882
NSP	16	PCB SPACER (3×8)	AEC1371
	17	PCB SPACER (3×12)	AEC1372
NSP	18	BINDER	AEC1384
NSP	19	PCB MOLD	AMR2115
	20	SCREW	ABA–258
	21	SCREW (3×14)	ABA1024
	22	SCREW (2.6×8)	ABA1095
	23	SCREW	BBZ26P080FMC
	24	SCREW	BBZ30P060FZK
	25	SCREW	BBZ30P080FZK
	26	SCREW	BBZ40P060FZK
	27	SCREW	BPZ26P080FMC
	28	SCREW (SX–P830 only)	PPZ50P100FZK
	29	SCREW	VBZ30P160FMC
	30	REMOCON FILTER	AAK2208
	31	DECORATIVE PLATE (TUNER)	AAK2319
	32	FUNCTION LENS (PLS)	AAK2320
	33	P–BASS LENS (PLS)	AAK2321
	34	PANEL SHEET (PLS)	AAK2373
	35	POWER LENS (PLS)	AAK2442
NSP	36	HEAD P. ASSEMBLY	AWZ4375
	37	VOL KNOB (PLS)	AAB1292
	38	JOG KNOB (PLS)	AAB1293
	39	P–BASS KNOB (PLS)	AAB1311
◉	40	CONNECTOR ASSEMBLY	AWZ4993
	41	BAND BUTTON (PLS)	AAD2291
◉	42	VR ASSEMBLY	AWZ4991
	43	HINGE BUTTON (PLS)	AAD2294
	44	POWER BUTTON (PLS)	AAD2343
	45	P–BASS BUTTON (PLS)	AAD2344
	46	BONNET	ANE1309
	47	OPERATING INSTRUCTIONS (German, Italian)	ARC1379
	48	OPERATING INSTRUCTIONS (English, French)	ARE1252
	49	OPERATING INSTRUCTIONS (Dutch, Swedish, Spanish, Portuguese)	ARE1254
	50	FRONT PAD	AHA1567
	51	REAR PAD	AHA1568
	52	PACKING CASE (For SX–P830)	AHD2363
		PACKING CASE (For SX–P730)	AHD2364
	53	PACKING SHEET	AHG1093
◉	54	DISPLAY ASSEMBLY	AWZ4326
◉	55	FRONT AMP ASSEMBLY (For SX–P830)	AWZ4334
◉		FRONT AMP ASSEMBLY (For SX–P730)	AWZ4341
◉	56	SUB POWER ASSEMBLY	AWZ4362
◉	57	REGULATOR ASSEMBLY (For SX–P830)	AWZ4346
◉		REGULATOR ASSEMBLY (For SX–P730)	AWZ4345
◉	58	MAIN ASSEMBLY (For SX–P830)	AWZ4348
◉		MAIN ASSEMBLY (For SX–P730)	AWZ4357

● PACKING


53
51
FRONT
47,48,49
50
52

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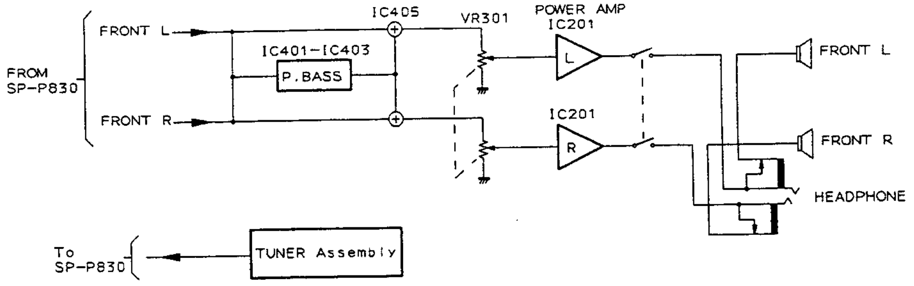
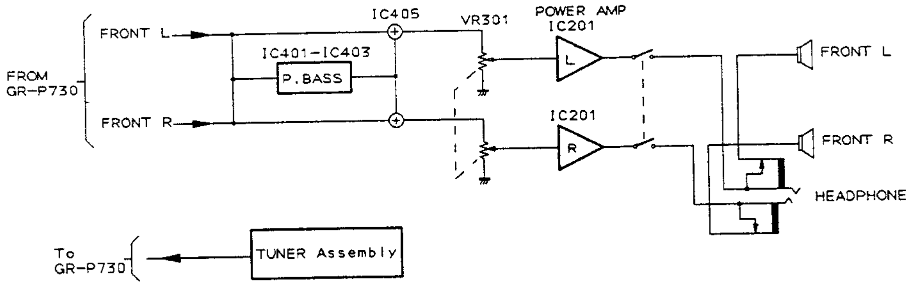
4. BLOCK DIAGRAM

4.1 FOR SX–P830

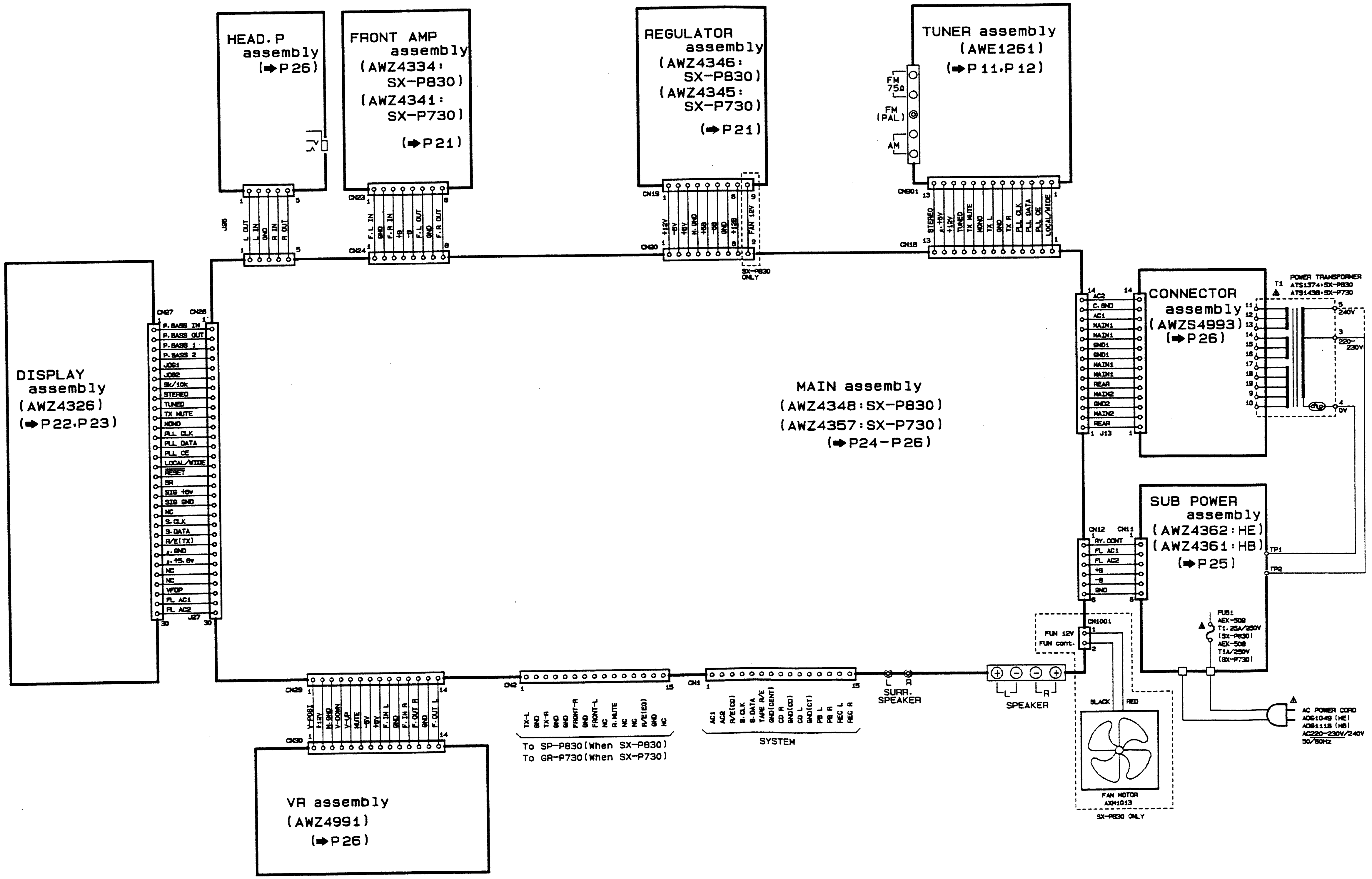

FROM SP-P830
FRONT L
FRONT R
IC405
IC401–IC403
P.BASS
VR301
POWER AMP IC201
L
IC201
R
FRONT L
FRONT R
HEADPHONE
To SP-P830
TUNER Assembly

4.2 FOR SX–P730


FROM GR-P730
FRONT L
FRONT R
IC405
IC401–IC403
P.BASS
VR301
POWER AMP IC201
L
IC201
R
FRONT L
FRONT R
HEADPHONE
To GR-P730
TUNER Assembly

5. SCHEMATIC AND PCB CONNECTION DIAGRAMS

5.1 OVERALL SCHEMATIC DIAGRAM (FOR SX－P830 AND SX－P730)


HEAD. P assembly (➡P26)
J25
L OUT
L IN
GND
R IN
R OUT
FRONT AMP assembly (AWZ4334 : SX-P830) (AWZ4341 : SX-P730) (➡P21)
CN23
CN24
F.L IN
GND
F.R IN
+B
-B
F.L OUT
GND
F.R OUT
REGULATOR assembly (AWZ4346 : SX-P830) (AWZ4345 : SX-P730) (➡P21)
CN19
CN20
+12V
-5V
+5V
M.GND
+5B
-5B
GND
+12B
FAN 12V
SX-P830 ONLY
TUNER assembly (AWE1261) (➡P11.P12)
FM 75Ω
FM (PAL)
AM
CN901
CN18
STEREO
μ.+5V
+12V
TUNED
TX MUTE
MONO
TX L
GND
TX R
PLL CLK
PLL DATA
PLL CE
LOCAL/WIDE
DISPLAY assembly (AWZ4326) (➡P22.P23)
CN27
CN28
J27
P.BASS IN
P.BASS OUT
P.BASS 1
P.BASS 2
JOG1
JOG2
9k/10k
STEREO
TUNED
TX MUTE
MONO
PLL CLK
PLL DATA
PLL CE
LOCAL/WIDE
RESET
SR
SIG +5V
SIG GND
NC
S.CLK
S.DATA
R/E(TX)
μ.GND
μ.+5.6V
NC
NC
VFDP
FL AC1
FL AC2
MAIN assembly (AWZ4348 : SX-P830) (AWZ4357 : SX-P730) (➡P24-P26)
CONNECTOR assembly (AWZS4993) (➡P26)
J13
AC2
C.GND
AC1
MAIN1
MAIN1
GND1
GND1
MAIN1
MAIN1
REAR
MAIN2
GND2
MAIN2
REAR
T1 POWER TRANSFORMER ATS1374 : SX-P830 ATS1438 : SX-P730
240V
220-230V
0V
SUB POWER assembly (AWZ4362 : HE) (AWZ4361 : HB) (➡P25)
CN12
CN11
RY.CONT
FL AC1
FL AC2
+B
-B
GND
TP1
TP2
FU51 AEK-509 T1.25A/250V (SX-P830) AEK-508 T1A/250V (SX-P730)
CN1001
FUN 12V
FUN cont.
BLACK
RED
FAN MOTOR AXM1013
SX-P830 ONLY
AC POWER CORD ADG1049 (HE) ADG1118 (HB) AC220-230V/240V 50/60Hz
SPEAKER
L
R
SURR. SPEAKER
CN29
CN30
V-POSI
+12V
M.GND
V-DOWN
V-UP
MUTE
-5V
+5V
F.IN L
GND
F.IN R
F.OUT R
GND
F.OUT L
VR assembly (AWZ4991) (➡P26)
CN2
TX-L
GND
TX-R
GND
GND
FRONT-R
GND
FRONT-L
NC
R.MUTE
NC
NC
R/E(EQ)
GND
NC
To SP-P830 (When SX-P830)
To GR-P730 (When SX-P730)
CN1
AC1
AC2
R/E(CD)
S.CLK
S.DATA
TAPE R/E
GND(CENT)
CD R
GND(CD)
CD L
GND(CT)
PB L
PB R
REC L
REC R
SYSTEM

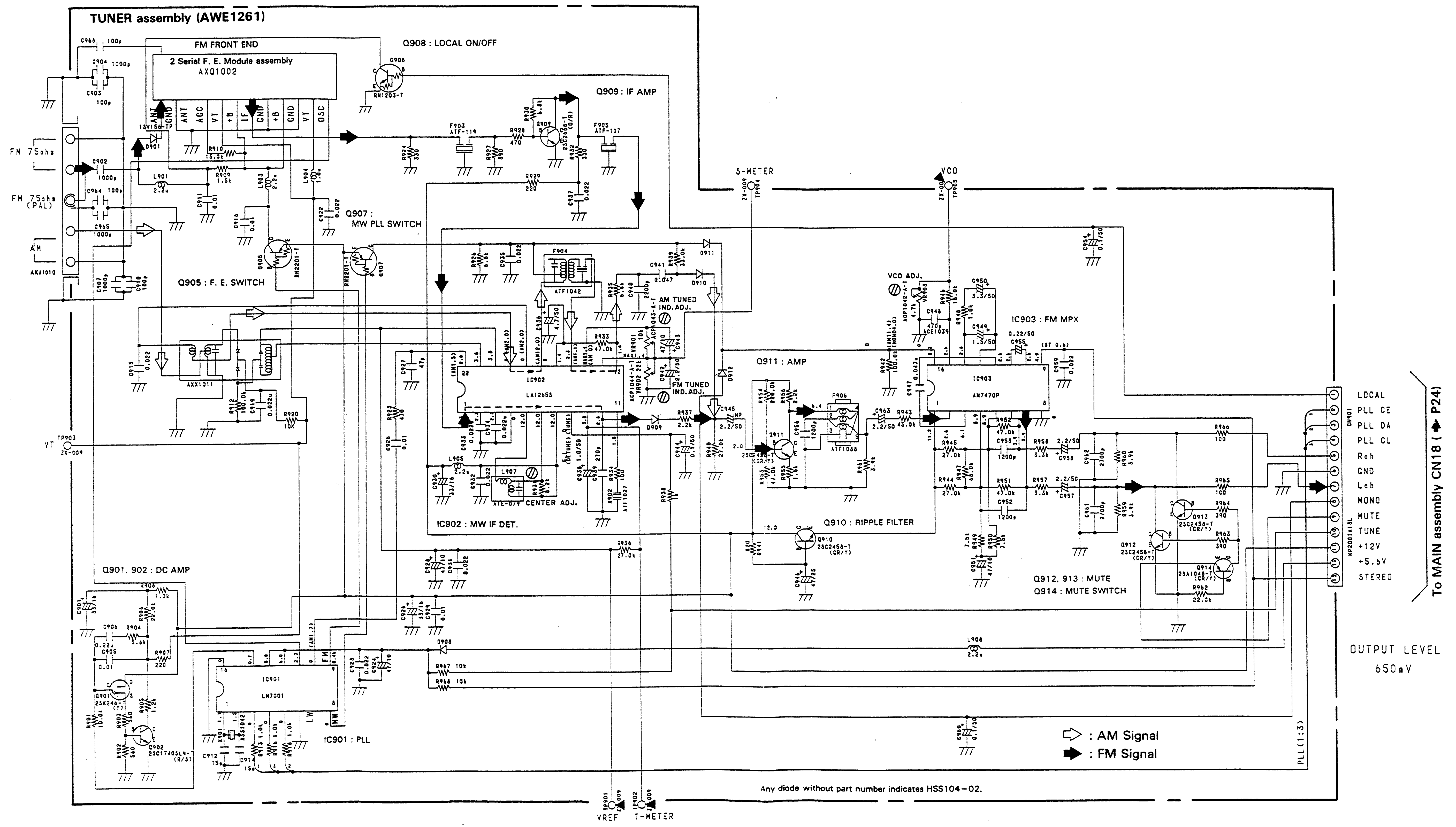
Note: Type 1

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   V : Signal voltage at rated output.
   : DC voltage (V) at no input signal unless otherwise noted. Value in ( ) is DC voltage at rated power.
   mV : Signal voltage at FM 1kHz, 100% MOD.
   ⇦ mA or ← mA : DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ➡ : Signal route.
   - ⊘ : Adjusting point.
   - ▼ (Red) : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SWITCHES** (Underline indicates switch position):

DISPLAY assembly

S1001	CLOCK ADJ.
S1002	REC
S1003	WAKE－UP
S1004	SET
S1005	NALLOW/LOCAL
S1006	M. SCAN
S1007	MEMORY (AUTO)
S1008	AUTO TUNE
S1009	FUNCTION
S1010	SUPER P. BASS
S1011	FREQ/STATION
S1012	BAND
S1013	POWER STANDBY/ON
S1030	TUNING JOG

5.2 TUNER ASSEMBLY


TUNER assembly (AWE1261)
FM FRONT END
2 Serial F. E. Module assembly
AXQ1002
ANT
GND
ANT
ACC
VT
+B
IF
GND
+B
GND
VT
OSC
Q908 : LOCAL ON/OFF
Q909 : IF AMP
Q905 : F. E. SWITCH
Q907 : MW PLL SWITCH
FM 75ohm
FM 75ohm (PAL)
AM
AKA1010
VT
TP903
ZX-009
AXX1011
F904
ATF1042
AM TUNED IND. ADJ.
FM TUNED IND. ADJ.
IC902
LA1265S
IC902 : MW IF DET.
CENTER ADJ.
S-METER
VCO
VCO ADJ.
Q911 : AMP
Q910 : RIPPLE FILTER
IC903 : FM MPX
IC903
AN7470P
F906
ATF1068
Q901, 902 : DC AMP
IC901
LM7001
IC901 : PLL
Q912, 913 : MUTE
Q914 : MUTE SWITCH
CN901
LOCAL
PLL CE
PLL DA
PLL CL
Rch
GND
Lch
MONO
MUTE
TUNE
+12V
+5.6V
STEREO
To MAIN assembly CN18 (→ P24)
OUTPUT LEVEL
650mV
PLL(1:3)
VREF
T-METER
TP901
TP902

⇨ : AM Signal

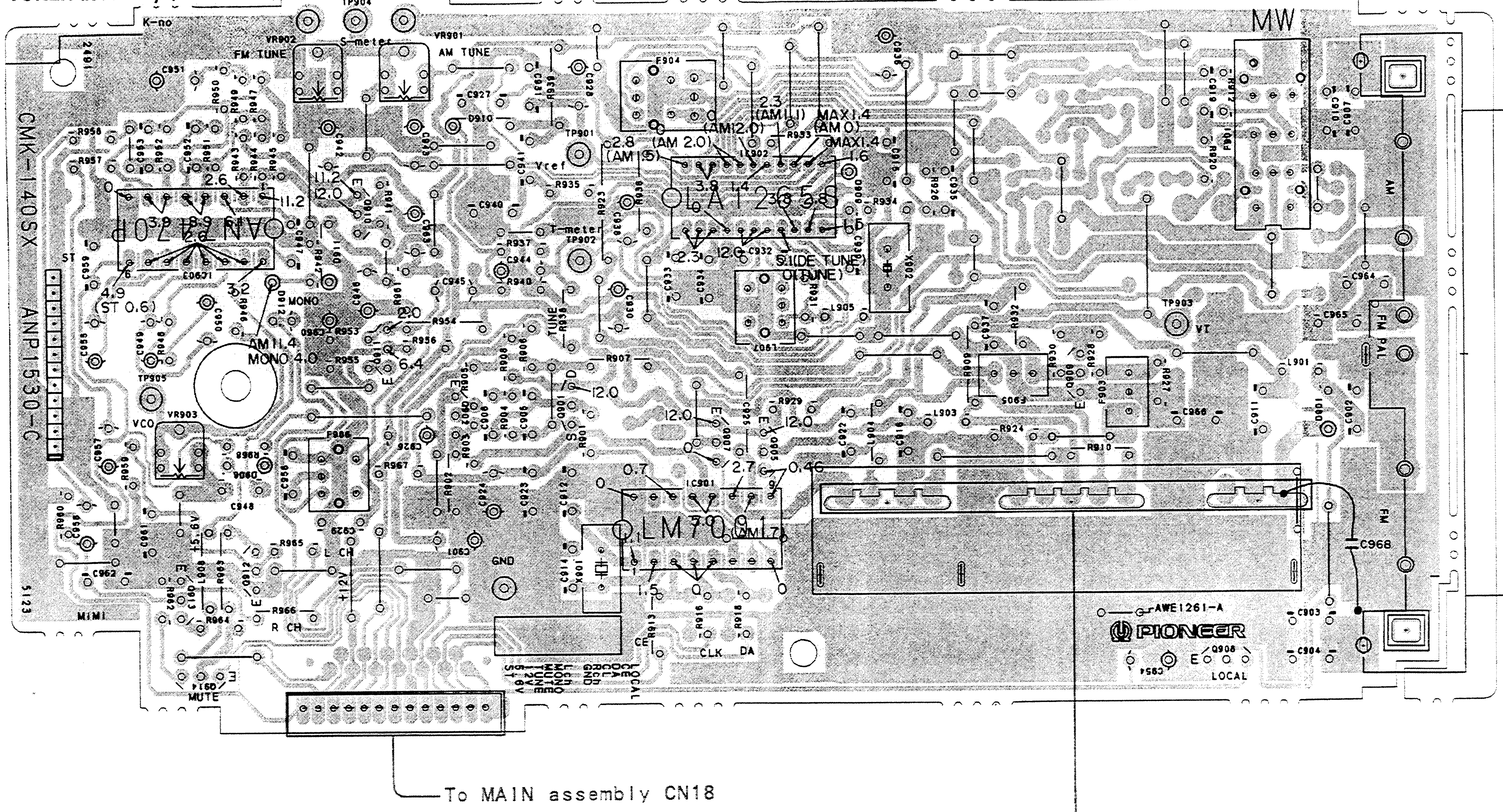
➡ : FM Signal

Any diode without part number indicates HSS104-02.

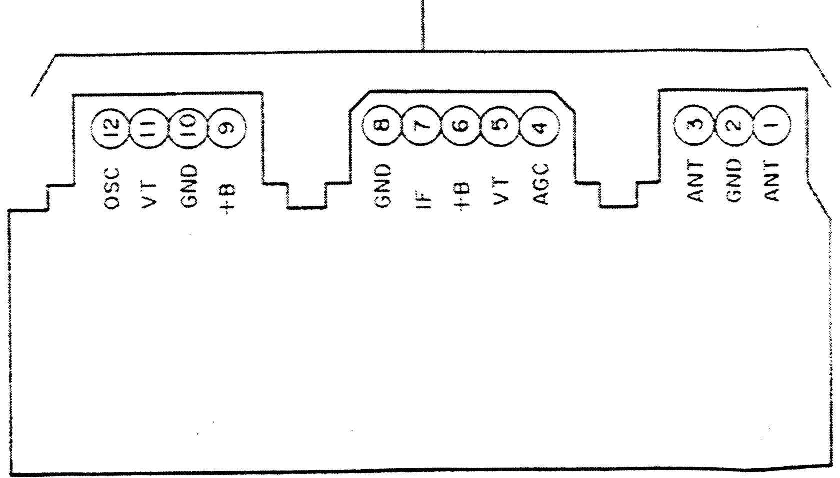
This P. C. B connection diagram is viewed from the parts mounted side.

IC903 D908 D912 D911 Q910 Q911 Q902 D910 Q901 Q907 IC902 Q905 IC901 D909 Q909 Q908 D901
Q913 Q914 Q912
VR903 VR902 VR901

TUNER assembly (AWE1261)


K-no
TP904
VR902 FM TUNE
S-meter
VR901 AM TUNE
CMK-140SX
ANP1530-C
AN7470P
LA1265S
LM7001
MW
AM
FM PAL
FM
TP901
TP902
TP903
TP905
Vref
T-meter
VT
VCO
MONO
ST
(ST 0.6)
AM 11.4
MONO 4.0
L CH
R CH
+12V
GND
MUTE
MIMI
CE
CLK
DA
LOCAL
C968
AWE1261-A
PIONEER
5V
TUNE
MUTE
GND
LCH
RCH
COC
DA
CE
GND
LOCAL

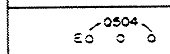
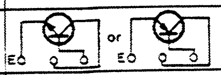
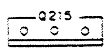
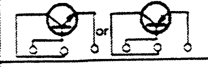
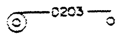
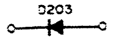
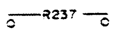
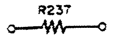
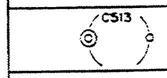
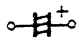
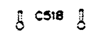
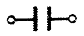
To MAIN assembly CN18


12 OSC
11 VT
10 GND
9 +B
8 GND
7 IF
6 +B
5 VT
4 AGC
3 ANT
2 GND
1 ANT

2 Serial F. E. Module assembly (AXQ1002)

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarized)
		Capacitor (Non-polarized)

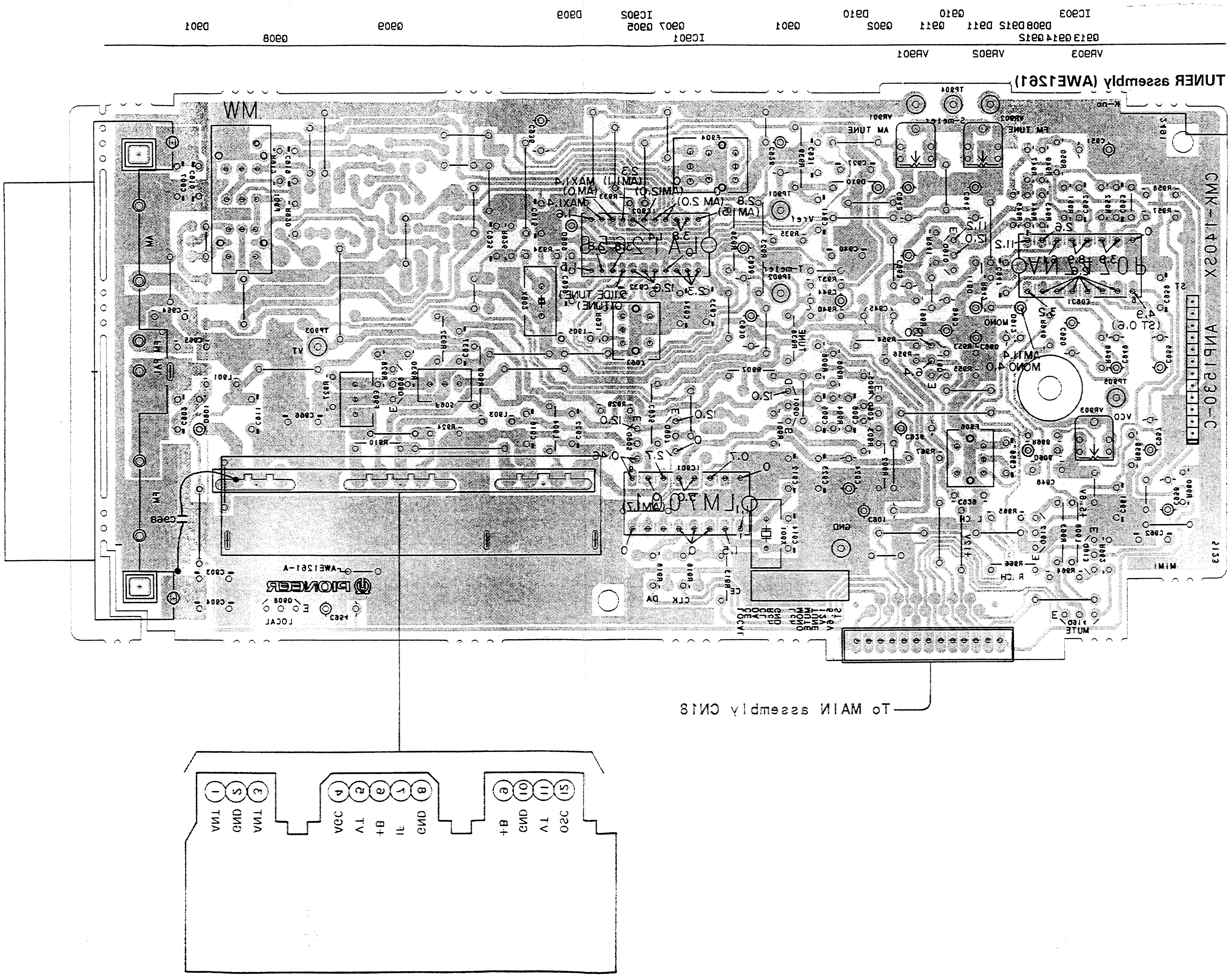
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capactor terminal marked with ◎ (double circles) shows negatine terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

This PCB connection diagram is viwed from the foil side.

TUNER assembly (AWE1261)

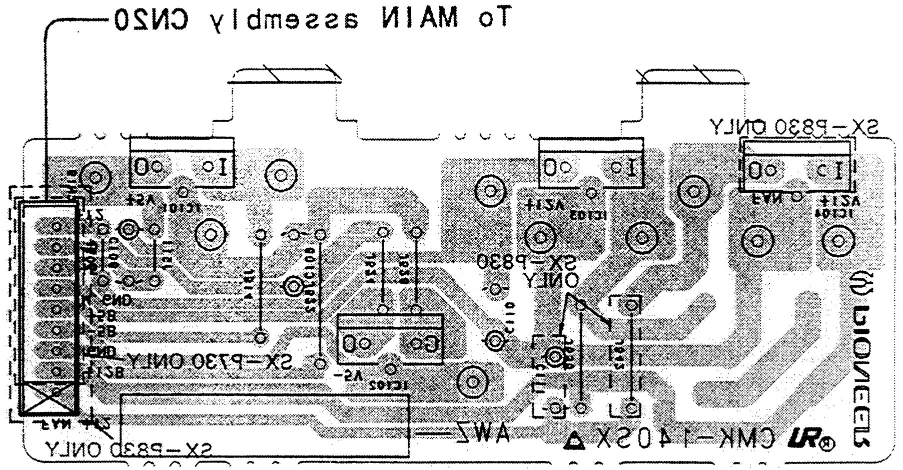


1
2
3
4
5
6
A
B
C
D
IC903
Q910
D910
IC902
D909
Q913 Q914 Q912
D908 D912 D911
Q911
Q902
Q901
D901
Q907 Q905
IC901
Q909
Q908
VR903
VR902
VR901
MW
MA
FM
CMX-1405X ANP1530-C
AWE1261-A
PIONEER
LOCAL
MUTE
CLK DA CE
L CH
R CH
GND
MONO
VCO
T-meter
S-meter
AM TUNE
FM TUNE
LM7001
To MAIN assembly CN18
ANT
GND
ANT
AGC
VT
B+
IF
GND
B+
GND
VT
OSC

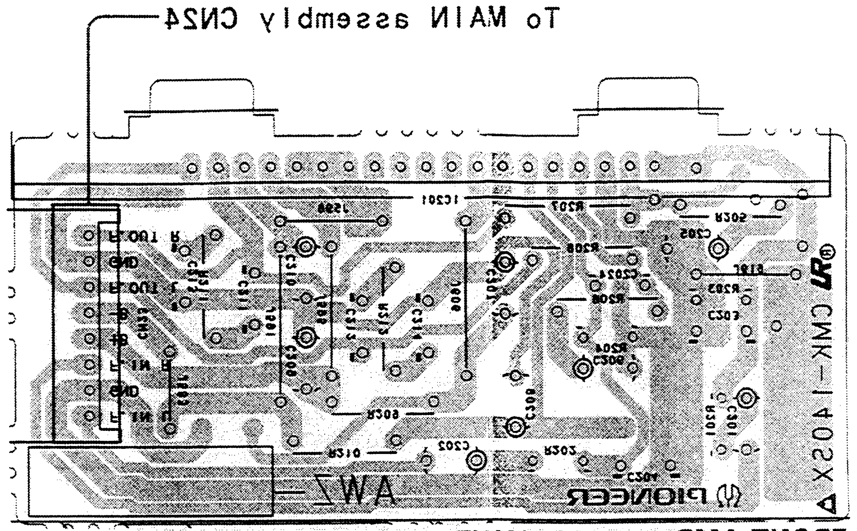
2 Serial F. E. Module assembly (AXQ1002)

5.3 DISPLAY ASSEMBLY, FRONT AMP ASSEMBLY AND REGULATOR ASSEMBLY

This PCB connection diagram is viwed from the foil side.

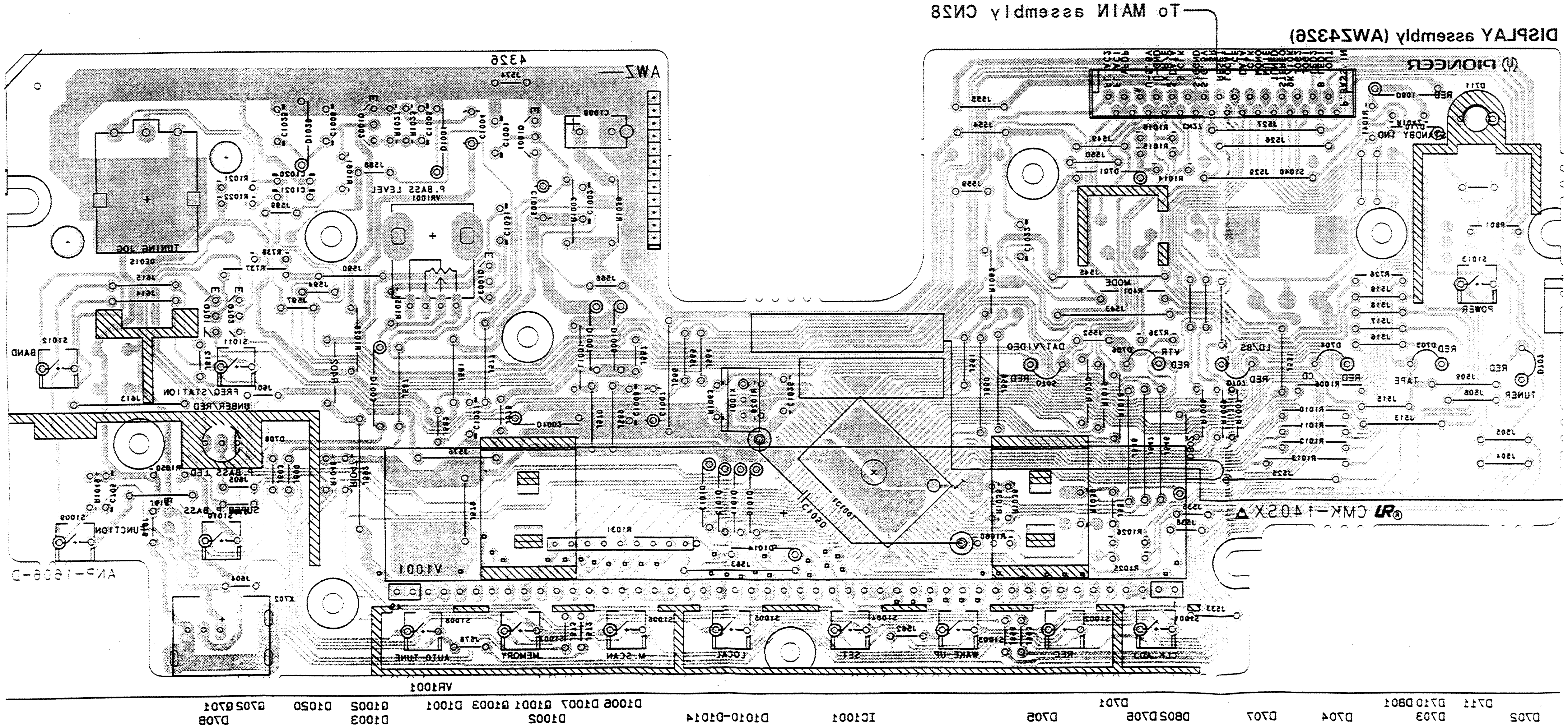

To MAIN assembly CN20
SX-P830 ONLY
SX-P730 ONLY
SX-P830 ONLY
PIONEER
CMK-1405X
AWZ

REGULATOR assembly (AWZ4346 : SX-P830)
(AWZ4345 : SX-P730)


To MAIN assembly CN24
PIONEER
CMK-1405X
AWZ

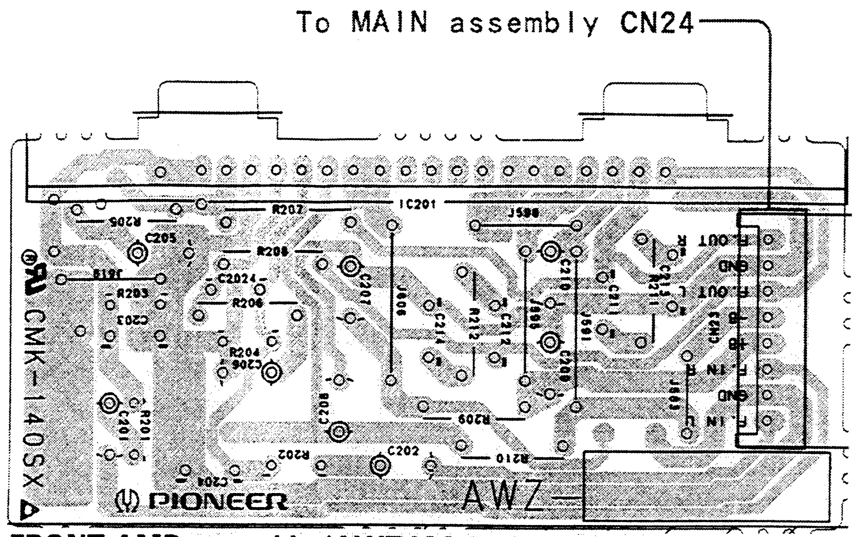
FRONT AMP assembly (AWZ4334 : SX-P830)
(AWZ4341 : SX-P730)

DISPLAY assembly (AWZ4326)

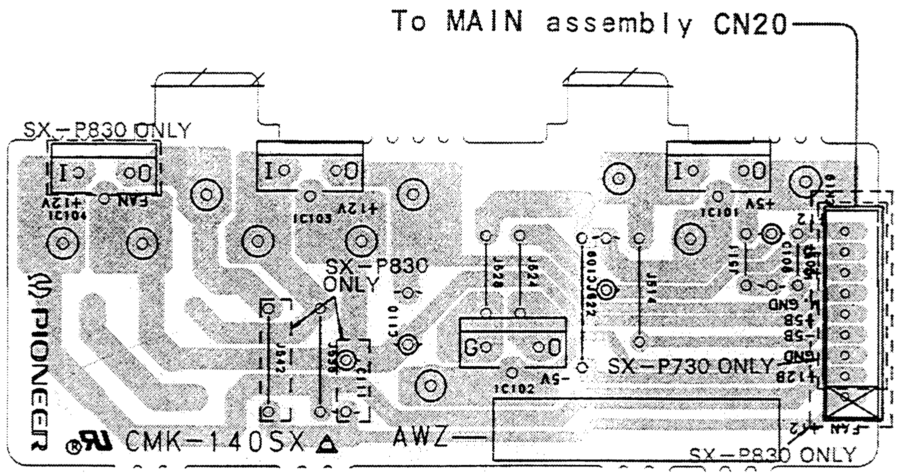

To MAIN assembly CN28
PIONEER
AWZ 4326
CMK-1405X
TUNING JOG
P.BASS LEVEL
BAND
FREQ/STATION
TIMER/REC
FUNCTION
P.BASS LED
SURR/P.BASS
AUTO-TUNE
MEMORY
M-SCAN
LOCAL
SET
WAKE-UP
REC
CLK/ADJ
MODE
DAT/VIDEO
VTR
LD/BS
CD
TAPE
TUNER
POWER
STANDBY
V1001
IC1001
ANP-1606-D
D1006 D1007 Q1001 Q1003 D1001
D1002
Q1002
D1003
D1020
Q702 Q701
D708
D1010-D1014
IC1001
D705
D701
D802 D706
D707
D704
D711 D710 D801
D703
D702

5.3 DISPLAY ASSEMBLY, FRONT AMP ASSEMBLY AND REGULATOR ASSEMBLY

This PCB connection diagram is viewd from the parts mounted side.

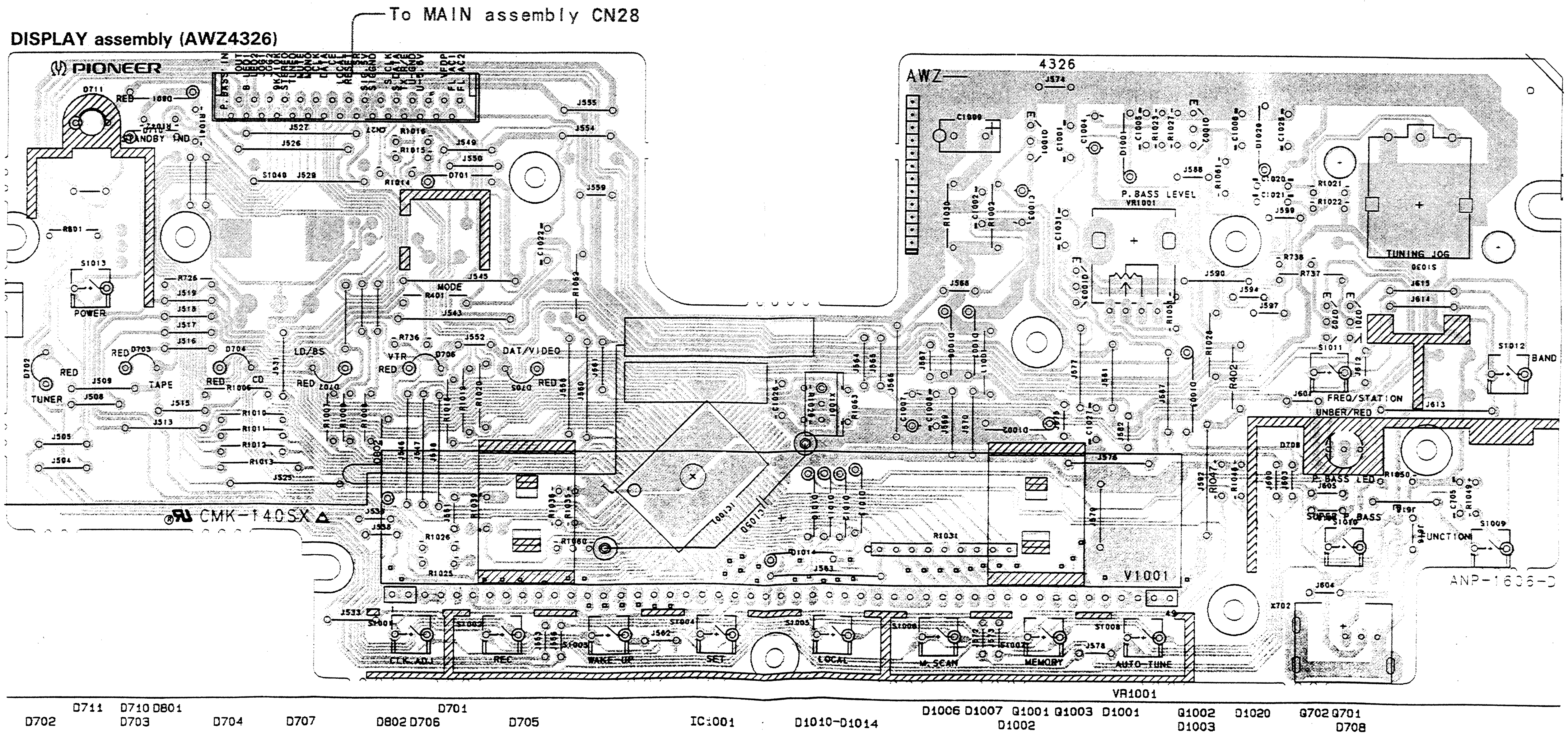

To MAIN assembly CN24
F.OUT R
GND
F.OUT L
GND
F.IN R
GND
F.IN L
IC201
R202
R205
C205
R208
R206
C2024
R203
C203
R204
R201
C201
R209
R210
C202
C208
C204
C207
J598
CMK-140SX
PIONEER
AWZ

FRONT AMP assembly (AWZ4334 : SX−P830)
(AWZ4341 : SX−P730)

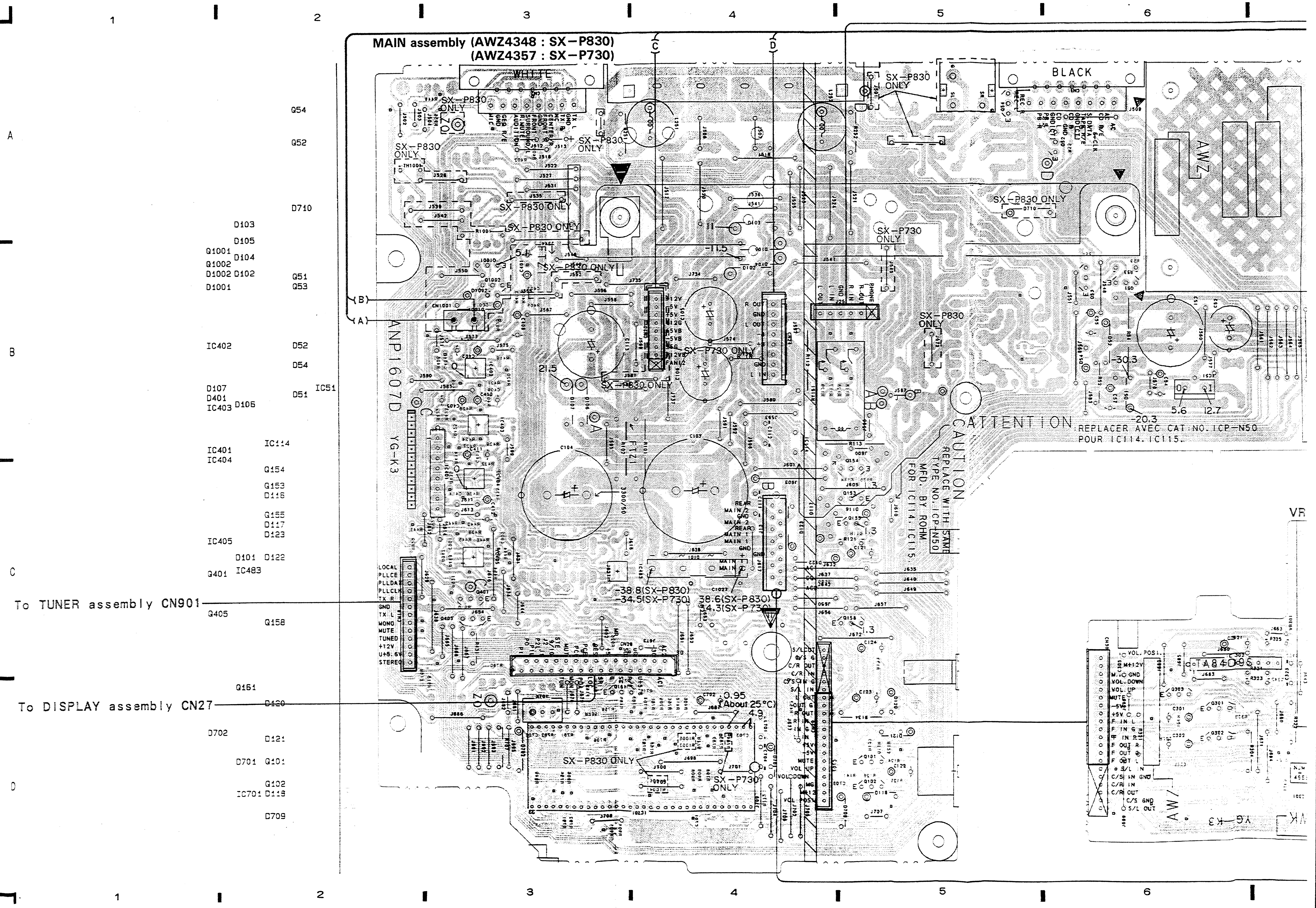

To MAIN assembly CN20
SX−P830 ONLY
+12V
FAN
IC104
IC103
+12V
IC101
+5V
SX−P830 ONLY
IC102
−5V
SX−P730 ONLY
GND
+5B
−5B
+12B
FAN
SX−P830 ONLY
PIONEER
CMK-140SX
AWZ

REGULATOR assembly (AWZ4346 : SX−P830)
(AWZ4345 : SX−P730)

DISPLAY assembly (AWZ4326)


To MAIN assembly CN28
PIONEER
D711
RED
STANDBY IND
R801
S1013
POWER
D702
RED
TUNER
D703
RED
TAPE
D704
RED
CD
LD/BS
RED
VTR
RED
D706
DAT/VIDEO
RED
MODE
IC1001
CMK-140SX
AWZ
4326
C1000
P. BASS LEVEL
VR1001
TUNING JOG
FREQ/STATION
UNBER/RED
S1012
BAND
P. BASS LED
SUPER P. BASS
FUNCTION
S1009
V1001
ANP-1636-D
CLK ADJ
REC
WAKE UP
SET
LOCAL
M. SCAN
MEMORY
AUTO TUNE
VR1001
D702
D711
D703
D710
D801
D704
D707
D802
D701
D706
D705
IC1001
D1010−D1014
D1006
D1007
Q1001
Q1003
D1001
D1002
Q1002
Q1003
D1020
Q702
Q701
D708

MAIN assembly (AWZ4348 : SX-P830)
(AWZ4357 : SX-P730)

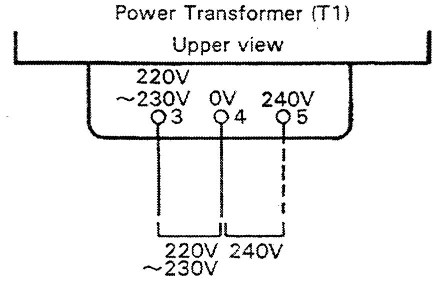


1
2
3
4
5
6
A
B
C
D
Q54
Q52
D710
D103
D105
Q1001
D104
Q1002
D1002
D102
D1001
Q51
Q53
IC402
D52
D54
D107
D401
IC403
D106
D51
IC51
IC401
IC404
IC114
Q154
Q153
D116
Q155
D117
D123
IC405
D101
D122
Q401
IC483
To TUNER assembly CN901
Q405
Q158
Q161
To DISPLAY assembly CN27
D120
D702
D121
D701
Q101
Q102
IC701
D118
D709
WHITE
BLACK
SX-P830 ONLY
SX-P730 ONLY
ANP1607D
YG-K3
AWZ
ATTENTION: REPLACER AVEC CAT. NO. ICP-N50 POUR IC114, IC115.
CAUTION REPLACE WITH SAME TYPE NO. ICP-N50 MFD. BY ROHM FOR IC114, IC115.
3300/50
21.5
-11.5
5.4
-30.3
-20.3
5.6
12.7
-38.8(SX-P830)
-34.5(SX-P730)
38.6(SX-P830)
34.3(SX-P730)
0.95
(About 25°C)
4.9
LOCAL
PLLCE
PLLDATA
PLLCLK
TX R
GND
TX L
MONO
MUTE
TUNED
+12V
U+5.6V
STEREO
REAR
MAIN 2
GND
MAIN 2
REAR
MAIN 1
MAIN 1
GND
R OUT
GND
L OUT
R IN
GND
L IN
VOL.POS1
M+12V
GND
VOL.DOWN
VOL.UP
MUTE
-5V
+5V
F IN L
F IN R
F OUT R
F OUT L
S/L IN
C/S IN GND
C/R IN
C/R OUT
C/S GND
S/L OUT
TA8409S
VR

Line Voltage Selection

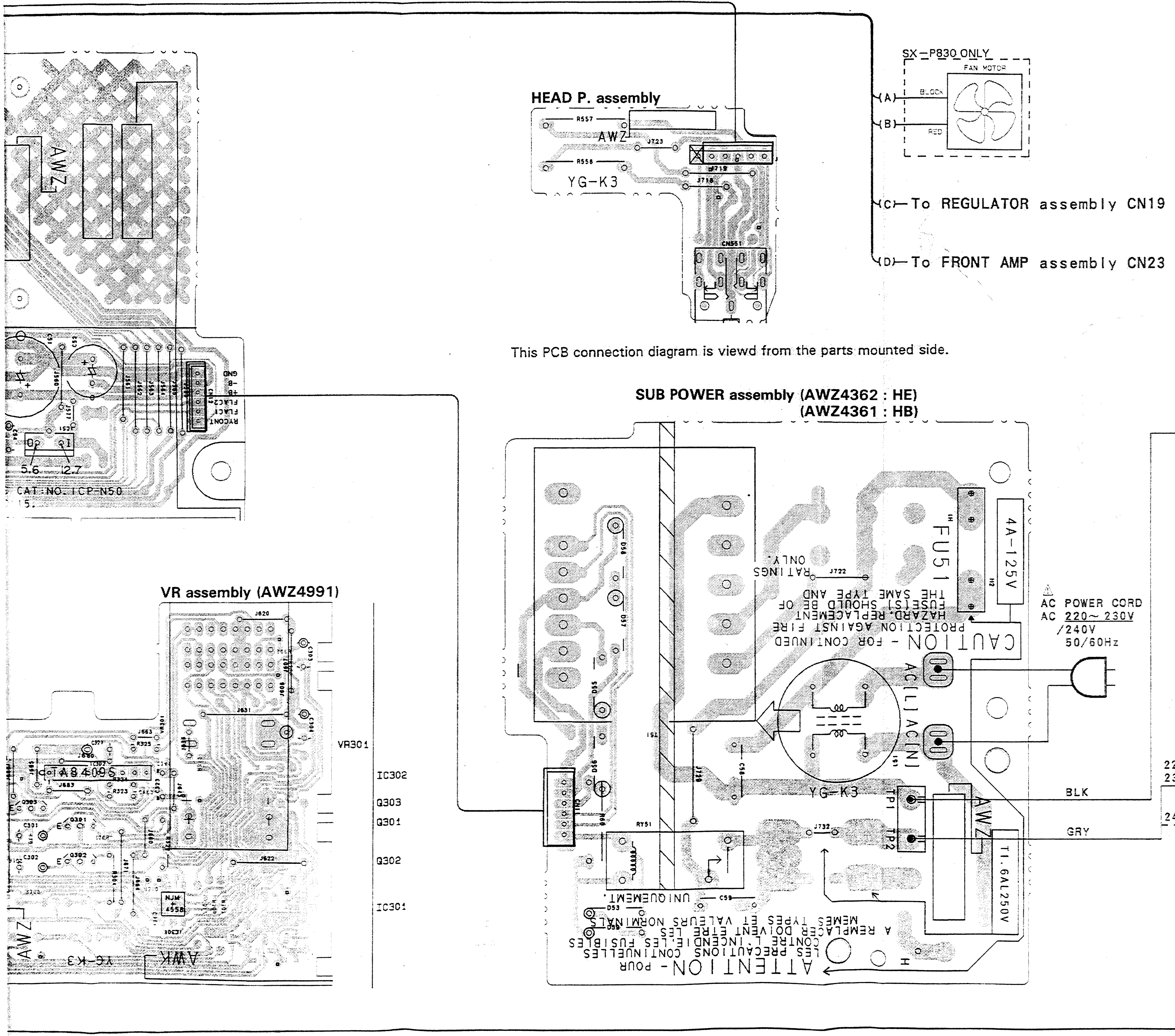
Line voltage can be changed with the following steps.

1. Disconnect the AC Power cord.
2. Remove the top cover.
3. Change the connection with the power transformer (T1) primary taps.

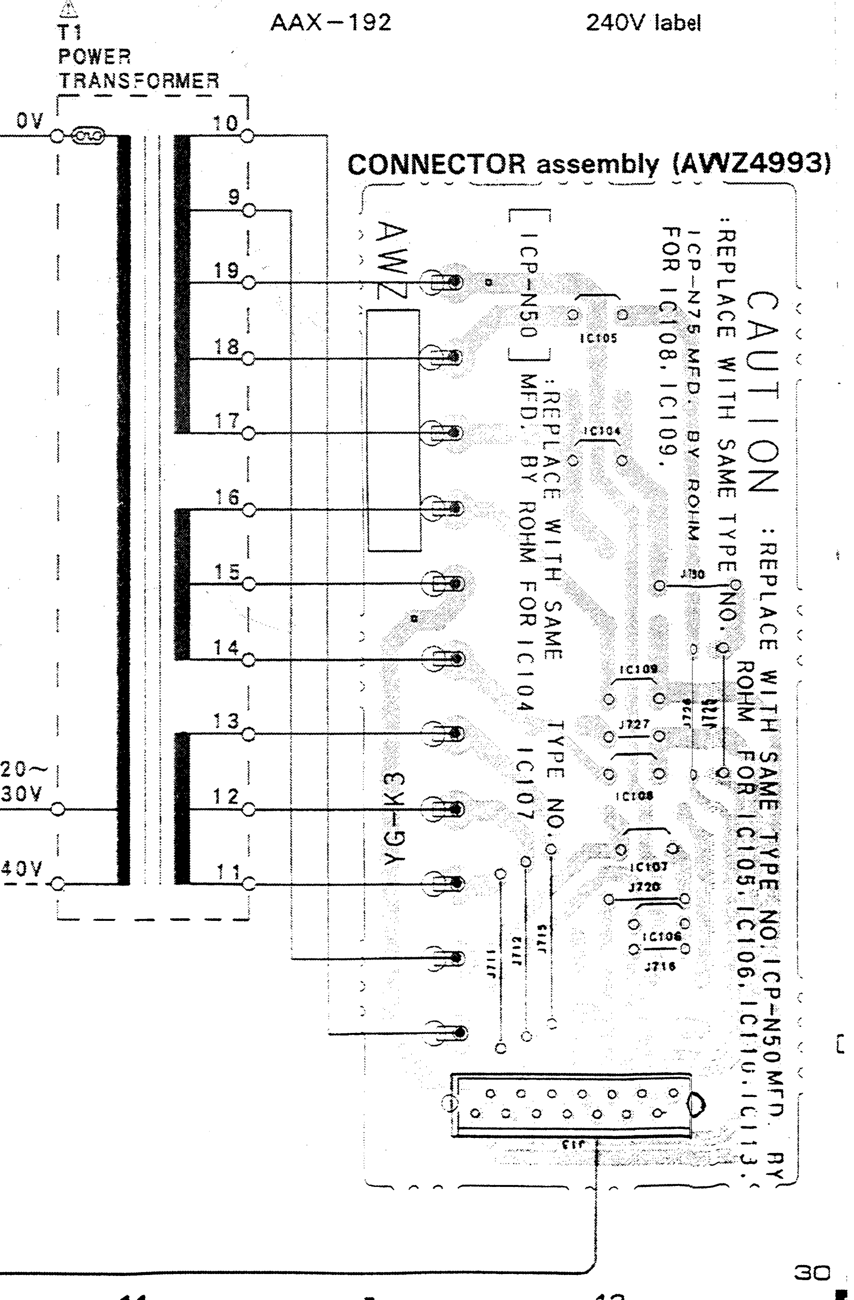

Power Transformer (T1)
Upper view
220V ~230V
0V
240V
3
4
5
220V ~230V
240V

4. Stick the line voltage label on the rear panel.

Part No.	Description
AAX−193	220V label
AAX−192	240V label


HEAD P. assembly
R557
R558
AWZ
YG-K3
J723
J719
J718
CN551
SX−P830 ONLY
FAN MOTOR
BLOCK
RED
(A)
(B)
(C)—To REGULATOR assembly CN19
(D)—To FRONT AMP assembly CN23
AWZ
GND
−B
+B
FLAC2
FLAC1
RYCONT
5.6
2.7
CAT. NO. ICP-N50
1.5
SUB POWER assembly (AWZ4362 : HE)
(AWZ4361 : HB)
FU51
4A-125V
CAUTION - FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSE(S) SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
J722
D58
D57
D55
D56
T51
J729
C58
AC [L]
AC [N]
YG-K3
TP1
TP2
AWZ
T1.6AL250V
RY51
J732
C59
D53
ATTENTION - POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEMES TYPES ET VALEURS NORMINALS.
AC POWER CORD
AC 220~230V
/240V
50/60Hz
BLK
GRY
VR assembly (AWZ4991)
J620
J631
J622
J663
R325
R323
TA8409S
J683
Q303
Q301
Q302
C301
C302
NJM 4558
VR301
IC302
Q303
Q301
Q302
IC301
AWZ
AWK
YG-K3

This PCB connection diagram is viewd from the parts mounted side.


T1
POWER TRANSFORMER
0V
10
9
19
18
17
16
15
14
13
12
11
220~230V
240V
CONNECTOR assembly (AWZ4993)
AWZ
YG-K3
CAUTION :REPLACE WITH SAME TYPE NO. ROHM FOR IC105, IC106, IC110, IC113.
:REPLACE WITH SAME TYPE NO. ICP-N50 MFD. BY ROHM
ICP-N75 MFD. BY ROHM FOR IC108, IC109.
[ICP-N50] :REPLACE WITH SAME TYPE NO. MFD. BY ROHM FOR IC104, IC107
IC105
IC104
J730
IC109
J727
IC108
IC107
J720
IC106
J716
J15

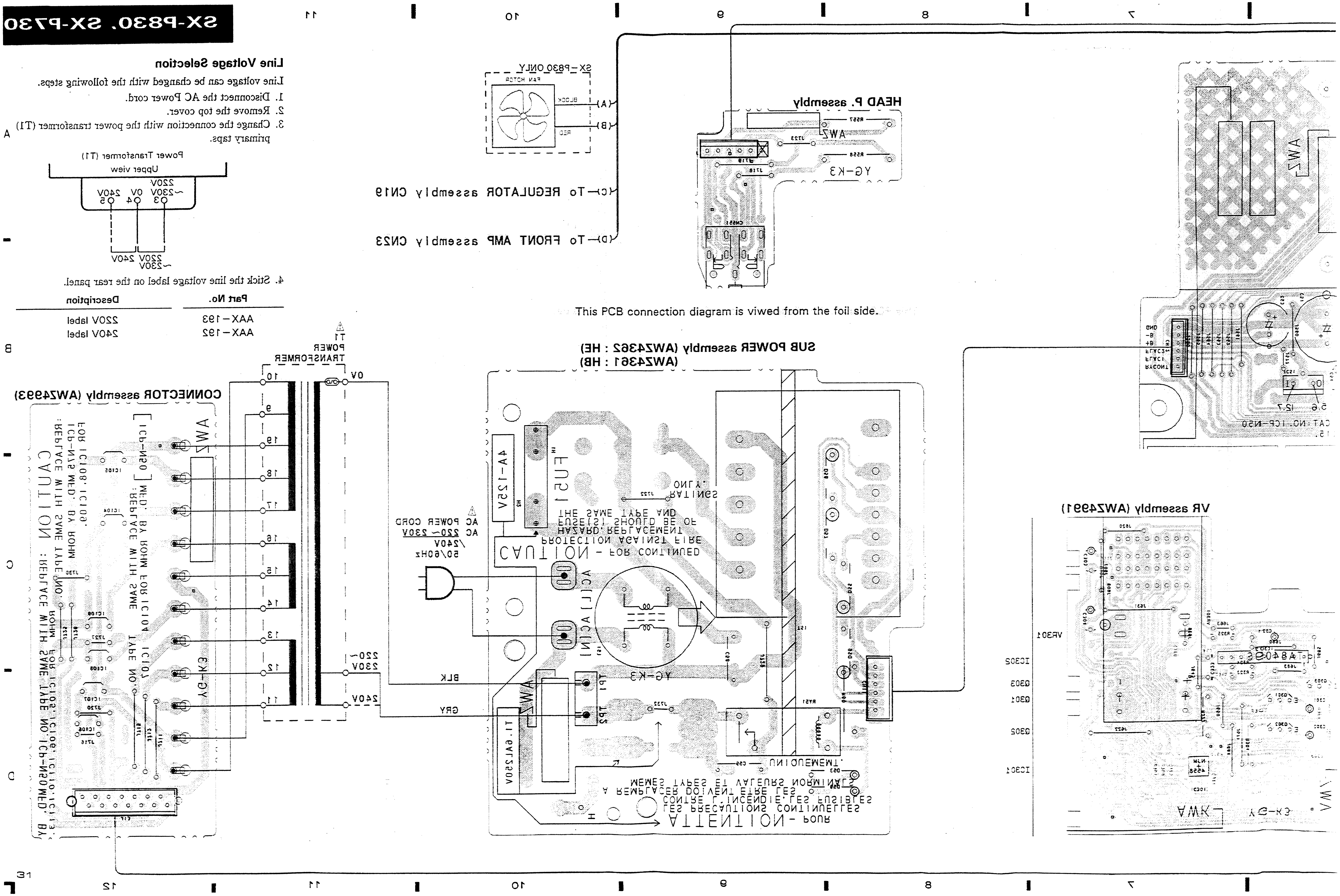
SX-P830, SX-P730

Line Voltage Selection

Line voltage can be changed with the following steps.

1. Disconnect the AC Power cord.
2. Remove the top cover.
3. Change the connection with the power transformer (T1) primary taps.
4. Stick the line voltage label on the rear panel.

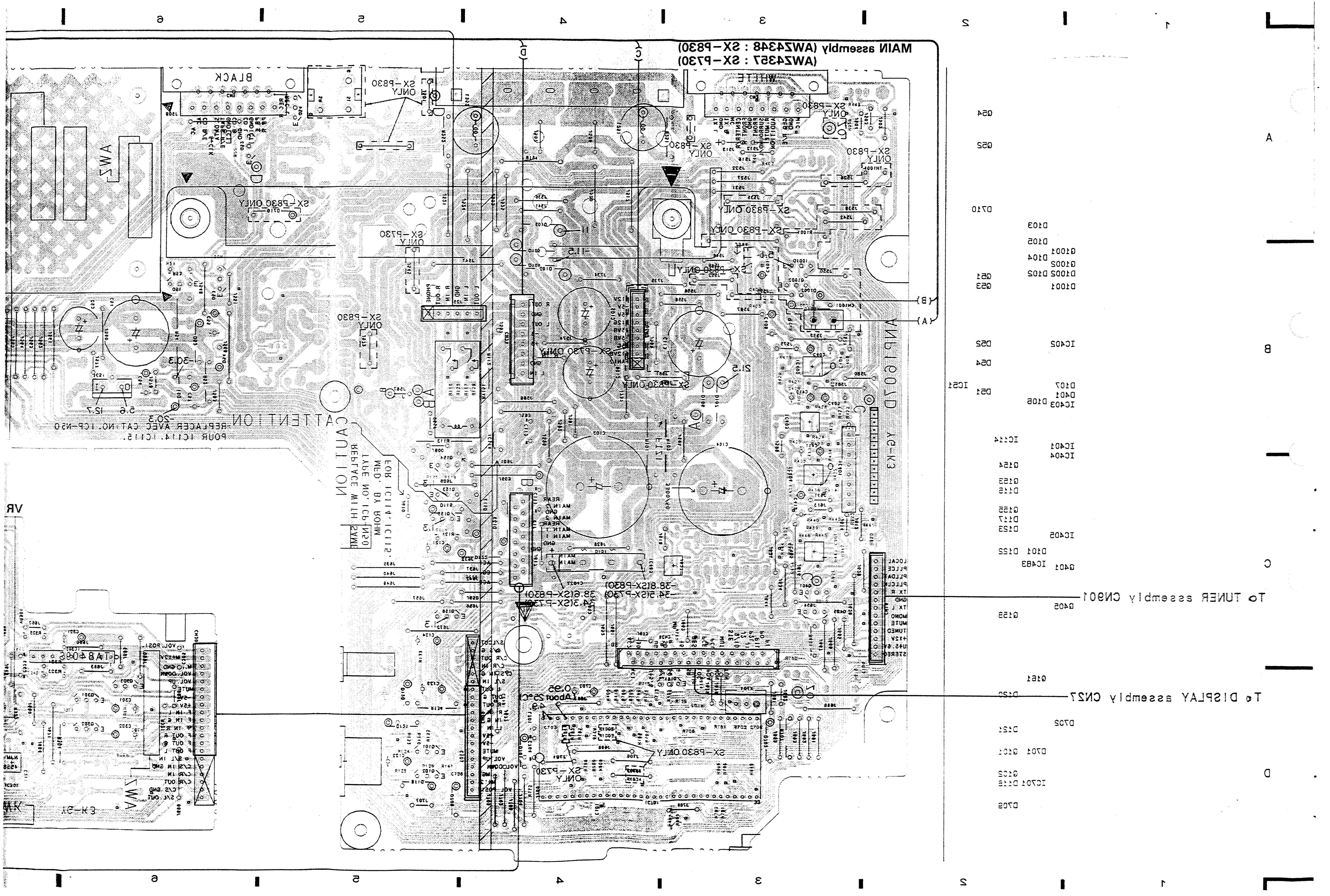
Part No.	Description
AAX-193	220V label
AAX-192	240V label



Power Transformer (T1)
Upper view
220V
~230V
0V
240V
3
4
5
SX-P830 ONLY
FAN MOTOR
BLACK
RED
(A)
(B)
(C)— To REGULATOR assembly CN19
(D)— To FRONT AMP assembly CN23
HEAD P. assembly
AWZ
YG-K3
T1
POWER TRANSFORMER
0V
220~230V
240V
CONNECTOR assembly (AWZ4993)
AWZ
YG-K3
CAUTION : REPLACE WITH SAME TYPE NO. ICP-N50 MFD. BY ROHM FOR IC108, IC109, IC110.
CAUTION : REPLACE WITH SAME TYPE NO. ICP-N75 MFD. BY ROHM FOR IC105, IC106.
[ICP-N50 MFD.: REPLACE WITH SAME TYPE NO. BY ROHM FOR IC101, IC104]
SUB POWER assembly (AWZ4362 : HE)
(AWZ4361 : HB)
AC POWER CORD
AC 220~230V
/240V
50/60Hz
BLK
GRY
FU51
T1.6AL250V
T4A-125V
CAUTION - FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSE(S) SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
ATTENTION - POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEMES TYPES ET VALEURS NORMINALES UNIQUEMENT.
AC INLET
TP1
TP2
YG-K3
AWZ
VR assembly (AWZ4991)
VR301
IC302
Q303
Q301
Q302
IC301
AWZ
YG-K3
CAT : NO. ICP-N50
IC51
12.7
5.6
RACONT
FLAC1
FLAC2
B+
B-
GND
AWZ

This PCB connection diagram is viwed from the foil side.

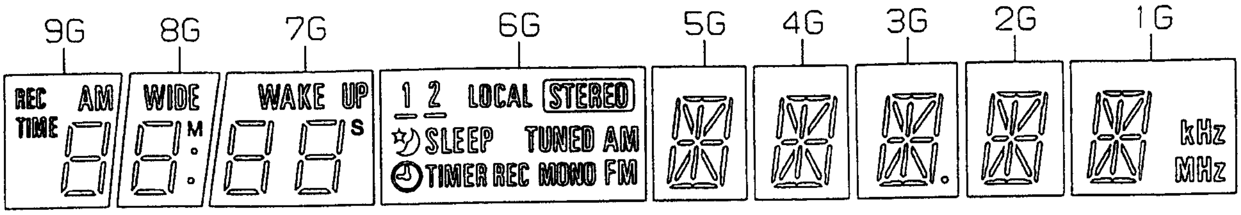
MAIN assembly (AWZ4348 : SX-P830)
(AWZ4357 : SX-P730)

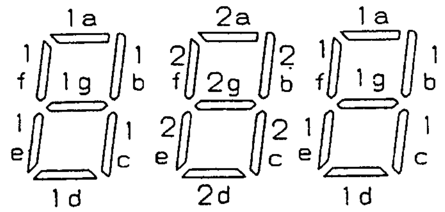

1
2
3
4
5
6
A
B
C
D
To TUNER assembly CN901
To DISPLAY assembly CN27
SX-P830 ONLY
SX-P730 ONLY
BLACK
WHITE

AAV1150 (DISPLAY ASSEMBLY : V1001)

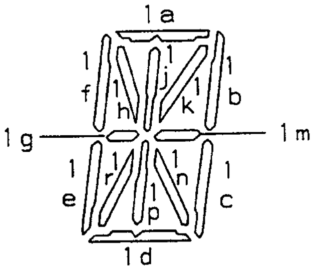
FL Tube

- Grid Assignment


9G
8G
7G
6G
5G
4G
3G
2G
1G
REC
AM
TIME
WIDE
M
WAKE UP
S
1 2
LOCAL
STEREO
SLEEP
TUNED AM
TIMER REC MONO FM
kHz
MHz


1a
1f
1g
1b
1e
1c
1d
2a
2f
2g
2b
2e
2c
2d
1a
1f
1g
1b
1e
1c
1d

(9G, 8G) (7G)


1a
1f
1h
1j
1k
1b
1g
1m
1e
1r
1p
1n
1c
1d

(5G~1G)

- Anode Connection

	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	1a	1a	1a	-	1a	1a	1a	1a	1a
P2	1b	1b	1b	(1)	1b	1b	1b	1b	1b
P3	1c	1c	1c	(2)	1c	1c	1c	1c	1c
P4	1d	1d	1d	LOCAL	1d	1d	1d	1d	1d
P5	1e	1e	1e	STEREO	1e	1e	1e	1e	1e
P6	1f	1f	1f	SLEEP	1f	1f	1f	1f	1f
P7	1g	1g	1g	TIMER	1g	1g	1g	1g	1g
P8	TIME	WIDE	S	REC	1h	1h	1h	1h	1h
P9	AM	M	2a	TUNED	1j	1j	1j	1j	1j
P10	-	(col)	2b	MONO	1k	1k	1k	1k	1k
P11	REC	-	2c	AM	1m	1m	1m	1m	1m
P12	-	-	2d	FM	1n	1n	1n	1n	1n
P13	-	-	2e	-	1p	1p	1p	1p	1p
P14	-	-	2f	-	1r	1r	1r	1r	1r
P15	-	-	2g	-	-	-	(dp)	-	kHz
P16	-	-	WAKEUP	1 2	-	-	-	-	MHz

- Pin Connection

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
CONNECTION	F1	F1	NP	NP	NC	NC	1G	2G	3G	4G	5G	6G	7G	8G	9G	NC	NC	NC	NC	NC	NC	P16	P15

PIN NO.	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
CONNECTION	P14	P13	P12	P11	P10	P9	P8	NC	NC	P7	P6	P5	P4	P3	P2	P1	NC	NC	NP	NP	F2	F2

NOTE
1) F1,F2 --- Filament
2) NP ------ No pin
3) NC ------ No connection
4) 1G~9G --- Grid

6. PCB PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω → 56 × 10^1 → 561 .... RD1/8PM[5][6][1] J
47kΩ → 47 × 10^3 → 473 .... RD1/4PS[4][7][3] J
0.5Ω → 0R5 .... RN2H[0][R][5] K
1Ω → 010 .... RS1P[0][1][0] K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ → 562 × 10^1 → 5621 .... RN1/4PC[5][6][2][1] F

6.1 FOR SX−P830/HE

LIST OF ASSEMBLIES

Mark	No.	Description	Parts No.
		TUNER ASSEMBLY	AWE1261
◉		DISPLAY ASSEMBLY	AWZ4326
◉		FRONT AMP ASSEMBLY	AWZ4334
◉		REGULATOR ASSEMBLY	AWZ4346
◉		MAIN ASSEMBLY	AWZ4348
◉		SUB POWER ASSEMBLY	AWZ4362
NSP		HEAD P. ASSEMBLY	AWZ4375
◉		VR ASSEMBLY	AWZ4991
◉		CONNECTOR ASSEMBLY	AWZ4993

TUNER ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC903		AN7470P
	IC902		LA1265S
	IC901		LM7001
	Q914		2SA1048
	Q902		2SC1740SLN
	Q910−Q913		2SC2458
	Q909		2SC2668
	Q901		2SK246
	Q908		RN1203
	Q905, Q907		RN2201
	D901		1SV156
	D908−D912		HSS104−02

COILS

Mark	No.	Description	Parts No.
	L907		ATE−079
	F905		ATF−107
	F903		ATF−119
	F904		ATF1042
	F906		ATF1088
	L904		LAU010K
	L901, L903, L905, L908		LAU2R2K

CAPACITORS

Mark	No.	Description	Parts No.
	C948	(470p/50V)	ACE1039
	C912, C914		CCDCH150J50
	C968		CCDSL101J50
	C939		CCDSL271J50
	C927		CCDSL470J50
	C945		CEANP2R2M50
	C938		CEAS010M50
	C944, C954, C960		CEAS0R1M50
	C949		CEAS1R5M50
	C942, C957, C958, C963		CEAS2R2M50
	C901, C926, C930		CEAS330M16
	C950		CEAS3R3M50
	C924, C928, C943, C951		CEAS470M10
	C946		CEAS470M25
	C936		CEAS4R7M50
	C955		CEASR22M50
	C905		CFTXA103J50
	C906		CFTXA224J50
	C952, C953, C956		CKDYB122K50
	C940		CKDYB222K50
	C961, C962		CKDYB272K50
	C902		CKDYF102Z50
	C915, C919, C922, C932−C935, C937		CKDYF223Z50
	C941, C947		CKDYF473Z50
	C903, C910, C964		CKPUYB101K50
	C904, C907, C965		CKPUYB102K50
	C911, C916, C925, C929		CKPUYF103Z25
	C923, C931, C959		CKPUYF223Z25

RESISTORS

Mark	No.	Description	Parts No.
	VR903	(4.7k)	ACP1042
	VR901	(10k)	ACP1043
	VR902	(22k)	ACP1044
		Other Resistors	RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
	X901	(7.200MHz)	ASS1042
	X902		ATF1027
		4P ANTENNA TERMINAL WITH PAL	AKA1010
		AM RF TUNING BLOCK	AXX1011
		2 SERIAL F. E. MODULE ASSEMBLY	AXQ1002

Note :
2 Serial F. E. module assembly has no service part.

DISPLAY ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC1001		PDG089B
	Q1003		2SA1048
	Q1002		2SC2458
	Q701, Q702		XDA143ES
	Q1001		XDC143ES
	D702−D707, D711		AEL1148
	D708		AEL1115
	D701, D710, D801, D802, D1001, D1006, D1007, D1010−D1014		HSS104−02
	D1003		RD4.7ESB2
	D1002, D1020		RD6.2ESB

SWITCHES

Mark	No.	Description	Parts No.
	S1001−S1013		ASG1034
	S1030		ASX1015

COIL

Mark	No.	Description	Parts No.
	L1001		LAU220K

CAPACITORS

Mark	No.	Description	Parts No.
	C1009		ACH1135
	C1004		CEAS010M50
	C1003		CEAS4R7M50
	C1007		CEJA470M10
	C1005		CFTXA224J50
	C1006		CKDYB102K50
	C1002		CKDYF223Z50
	C705, C1025, C1050		CKPUYB101K50
	C1022		CKPUYB102K50
	C1027		CKPUYF103Z25
	C1031		CKPUYF223Z25
	C1001, C1008, C1020, C1021, C1026		CKPUYF473Z16

RESISTORS

Mark	No.	Description	Parts No.
	VR1001	(10k−B)	ACS1048
	R1031		RA8S473J
	R401, R402		RD1/4PMF1R5J
		Other Resistors	RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
		REMOTE SENSOR UNIT	AXX1023
	X1001	(8.00MHz)	ASS1015
	CN27	30P SOCKET	AKP1095
	V1001	FL TUBE	AAV1150

FRONT AMP ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC201		STK4160−2G

CAPACITORS

Mark	No.	Description	Parts No.
	C209, C210		CEAS100M50
	C205−C208		CEAS101M50
	C201, C202		CEASR15M50
	C203, C204		CQMA471J50
	C211−C214		CQMA473J50

RESISTORS

Mark	No.	Description	Parts No.
	R211, R212		RD1/4PM4R7J
	R209, R210		RD1/4PMFL101J
	R205, R206		RDR1/4PM561J
	R207, R208		RDR1/4PM563J
		Other Resistors	RD1/8PM□□□J

REGULATOR ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC103, IC104		MC7812CT
	IC101		NJM78M05FAS
	IC102		NJM79M05FA

CAPACITORS

Mark	No.	Description	Parts No.
	C109−C111		CEAS220M16
	C108		CEJA220M16

MAIN ASSEMBLY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC114		ICP−N50
	IC401		M5222L
	IC402−IC405		NJM4558M−D
	IC51		NJM78M56FAS
	IC701		PD5199A
	Q102		2SA1048
	Q51−Q54, Q101, Q153−Q155, Q158, Q401, Q405, Q1002		2SC2458
	Q161, Q1001		XDC143ES
	D701, D1001		1S1555
	D401		1SS226
	D101		D3SBA20 (A)
	D118, D120, D710, D1002		HSS104−02
	D51		RD10EB

Mark	No.	Description	Parts No.
	D116, D117		RD11EB
	D54		RD16ESB
	D52		RD16ESB1
	D121, D709		RD6.2EB
	D702		RD6.2ESB2
	D102–D107, D122, D123		S5566
	TH1001		NTH2218F
RELAY			
	RY151		ASR1035
COILS			
	L251, L252		ATH–133
	L701		LAU220K
CAPACITORS			
	C103, C104	(3300/50V)	ACH1066
	C401, C402, C408		CEAS010M50
	C122		CEAS100M50
	C105, C106		CEAS102M35
	C121, C123		CEAS221M16
	C52		CEAS221M50
	C51		CEAS222M25
	C113		CEAS222M35
	C405, C410		CEAS2R2M50
	C124		CEAS330M50
	C702		CEAS470M16
	C54, C57		CEHAQ470M16
	C55		CEHAQ470M50
	C412		CEJA2R2M50
	C411		CEJAR68M50
	C111, C112		CKCYF103Z50
	C704		CKCYF473Z50
	C413		CKSQYB183K50
	C404, C409		CKSQYB333K50
	C403, C901, C902		CKSQYF104Z50
	C701, C703, C706–C708		CKSQYF473Z50
	C414		CKSQYF683Z50
	C1027		CQMA104K250
RESISTORS			
	R134		RD1/2PM182J
	R251, R252		RD1/4PMFL100J
	R1001		RN1/4PC3601F
	R123, R135, R141, R715, R716, R772, R776, R779, R780, R910, R914, R917, R918, R920, R921, R923–R926, R949, R956, R999, R1003–R1006		RS1/10S000J
	R55–R59, R110, R114, R435, R449		RS1/10S102J
	R117, R118, R122, R403, R404, R422–R425, R947, R948		RS1/10S103J
	R125, R405, R433, R798		RS1/10S104J
	R702		RS1/10S105J
	R126		RS1/10S112J

Mark	No.	Description	Parts No.
	R408, R409		RS1/10S113J
	R436		RS1/10S152J
	R429		RS1/10S153J
	R1002		RS1/10S182J
	R453, R454		RS1/10S221J
	R419, R703–R706, R709, R767, R768, R781		RS1/10S222J
	R124		RS1/10S223J
	R427		RS1/10S224J
	R407		RS1/10S272J
	R434		RS1/10S273J
	R401, R402, R430		RS1/10S333J
	R489		RS1/10S334J
	R133		RS1/10S472J
	R115, R428		RS1/10S473J
	R445, R446		RS1/10S561J
	R406, R418, R439, R440		RS1/10S562J
	R759, R760, R766, R782, R783, R791, R792, R796, R904–R906, R908, R909		RS1/10S563J
	R420, R421, R441		RS1/10S622J
	R442		RS1/10S622J
	R426		RS1/10S682J
	R443, R444		RS1/10S822J
	R128, R129, R432		RS1/10S823J
	R112		RS2LMF221J
	R113, R557, R558		RS2LMF331J
	R101, R102		RS2LMFR22J
	R54		RS3LMF821J
		Other Resistors	RD1/8PM□□□J
OTHERS			
	X701	(4.00MHz)	ASS1025
		2P PIN JACK	AKB1146
		4P SPEAKER TERMINAL	AKE–109
	CN1	15P SOCKET	AKP1090
	CN2	15P SOCKET	AKP1092
	CN28	30P SOCKET	AKP1094

SUB POWER ASSEMBLY

SEMICONDUCTORS			
	D53, D59		RD5.6ESB
	D55–D58		S5566
RELAY			
	RY51		ASR1027
COIL & TRANSFORMER			
	L51		ATF–151
	T51		ATT1221
CAPACITORS			
	C58, C59	(0.01/400V)	ACG1003

Mark	No.	Description	Parts No.
RESISTORS			
	R60		RS2LMF390J

HEAD P. ASSEMBLY

OTHERS			
	CN551	MINI JACK	AKN1028

VR ASSEMBLY

SEMICONDUCTORS			
	IC302		TA8409S
	IC301		UPC4570G2
	Q301, Q302		2SC2878
	Q303		RN2203
CAPACITORS			
	C321		CEAS101M16
	C301, C302		CEXA2R2M50
	C303, C304		CEYA2R2M50
	C323		CKCYX104M16
	C305		CKPUYF223Z25
	C341, C342		CKSQYF104Z50
	C311, C312		CKSQYF473Z50
RESISTORS			
	VR301	(100k–4B×2 50k–6B)	ACX1064
	R321, R322		RDR1/4PM390J
	R311, R312		RS1/10S000J
	R305, R306		RS1/10S102J
	R307, R308		RS1/10S104J
	R309, R310		RS1/10S221J
	R301–R303		RS1/10S472J
		Other Resistors	RD1/8PM□□□J

CONNECTOR ASSEMBLY

SEMICONDUCTORS			
	IC104–IC107		ICP–N50
	IC108, IC109		ICP–N75

6.2 FOR SX–P730/HE

Mark	No.	Description	Parts No.
LIST OF ASSEMBLIES			
		TUNER ASSEMBLY	AWE1261
◉		DISPLAY ASSEMBLY	AWZ4326
◉		FRONT AMP ASSEMBLY	AWZ4341
◉		REGULATOR ASSEMBLY	AWZ4345
◉		MAIN ASSEMBLY	AWZ4357
◉		SUB POWER ASSEMBLY	AWZ4362
NSP		HEAD P. ASSEMBLY	AWZ4375
◉		VR ASSEMBLY	AWZ4991
◉		CONNECTOR ASSEMBLY	AWZ4993

FRONT AMP ASSEMBLY

SEMICONDUCTORS			
	IC201		STK4140–2G
CAPACITORS			
	C209, C210		CEAS100M50
	C201, C202		CEASR15M50
	C205–C208		CEXA101M50
	C203, C204		CQMA471J50
	C211–C214		CQMA473J50
RESISTORS			
	R211, R212		RD1/4PM4R7J
	R205, R206		RD1/4PM561J
	R209, R210		RD1/4PMFL101J
	R207, R208		RDR1/4PM563J
		Other Resistors	RD1/8PM□□□J

REGULATOR ASSEMBLY

SEMICONDUCTORS			
	IC103		MC7812CT
	IC101		NJM78M05FAS
	IC102		NJM79M05FA
CAPACITORS			
	C109, C110		CEAS220M16
	C108		CEJA220M16

MAIN ASSEMBLY

SEMICONDUCTORS			
	IC114		ICP–N50
	IC401		M5222L
	IC402–IC405		NJM4558M–D
	IC51		NJM78M56FAS
	IC701		PD5199A

Mark	No.	Description	Parts No.
	Q102		2SA1048
	Q51−Q54, Q101, Q153−Q155, Q158, Q401, Q405		2SC2458
	Q161		XDC143ES
	D701		1S1555
	D401		1SS226
	D101		D3SBA20 (A)
	D118, D120		HSS104−02
	D51		RD10EB
	D116, D117		RD11EB
	D52, D54		RD16ESB1
	D121, D709		RD6.2EB
	D702		RD6.2ESB2
	D102−D107, D122, D123		S5566

RELAY

Mark	No.	Description	Parts No.
	RY151		ASR1035

COILS

Mark	No.	Description	Parts No.
	L251, L252		ATH−133
	L701		LAU220K

CAPACITORS

Mark	No.	Description	Parts No.
	C103, C104(3300/50V)		ACH1066
	C401, C402, C408		CEAS010M50
	C122		CEAS100M50
	C105, C106		CEAS102M35
	C121, C123		CEAS221M16
	C52		CEAS221M50
	C51		CEAS222M25
	C113		CEAS222M35
	C405, C410		CEAS2R2M50
	C124		CEAS330M50
	C702		CEAS470M16
	C54, C57		CEHAQ470M16
	C55		CEHAQ470M50
	C412		CEJA2R2M50
	C411		CEJAR68M50
	C111, C112		CKCYF103Z50
	C704		CKCYF473Z50
	C413		CKSQYB183K50
	C404, C409		CKSQYB333K50
	C403, C901, C902		CKSQYF104Z50
	C701, C703, C706−C708		CKSQYF473Z50
	C414		CKSQYF683Z50
	C1027		CQMA104K250

RESISTORS

Mark	No.	Description	Parts No.
	R134		RD1/2PM182J
	R251, R252		RD1/4PMFL100J
	R123, R135, R141, R715, R716, R772, R776, R779, R780, R910, R914, R917, R918, R920, R921, R923−R926, R949, R956, R999		RS1/10S000J
	R55−R59, R110, R114, R435, R449		RS1/10S102J
	R117, R118, R122, R403, R404, R422−R425, R947, R948		RS1/10S103J
	R125, R405, R433, R798		RS1/10S104J
	R702		RS1/10S105J
	R126		RS1/10S112J
	R408, R409		RS1/10S113J
	R436		RS1/10S152J
	R429		RS1/10S153J
	R453, R454		RS1/10S221J
	R419, R703−R706, R709, R767, R768, R781		RS1/10S222J
	R124		RS1/10S223J
	R427		RS1/10S224J
	R407		RS1/10S272J
	R434		RS1/10S273J
	R401, R402, R430		RS1/10S333J
	R489		RS1/10S334J
	R133		RS1/10S472J
	R115, R428		RS1/10S473J
	R445, R446		RS1/10S561J
	R406, R418, R439, R440		RS1/10S562J
	R759, R760, R766, R782−R784, R791, R792, R796, R904−R906, R908, R909		RS1/10S563J
	R420, R421, R441, R442		RS1/10S622J
	R426		RS1/10S682J
	R443, R444		RS1/10S822J
	R128, R129, R432		RS1/10S823J
	R112		RS2LMF151J
	R113		RS2LMF271J
	R557, R558		RS2LMF331J
	R101, R102		RS2LMFR22J
	R54		RS3LMF821J
		Other Resistors	RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
	X701	(4.00MHz)	ASS1025
		4P SPEAKER TERMINAL	AKE−109
	CN1	15P SOCKET	AKP1090
	CN2	15P SOCKET	AKP1092
	CN28	30P SOCKET	AKP1094

Note : The other assemblies of SX−P730/HE are the same as those of SX−P830/HE.
Refer to " 6.1 FOR SX−P830 ".

7. ADJUSTMENTS

7.1 ADJUSTMENT OF THE FM TUNER SECTION

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 7−1.

Step No.	Adjustment Title	FM SG (1kHz±75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Center Adjustment	98	80	98.0MHz	L907	Adjust so that the DC voltage between the TP901 (Vref) and TP902 (T−meter) becomes 0V±50mV.
2	VCO Adjustment	Non modulation	80	98.0MHz	VR903	Adjust so that the output of the TP905 (VCO) becomes 76kHz±0.5kHz.
3	TUNED IND. Lighting Level	98 *1 (Stereo modulation)	18 (±3dB)	98.0MHz	VR902	Adjust so that the indicators of TUNED, STEREO IND. start to light up.

Note :
Perform steps 1 and 3 when the 2 serial F. E. module assembly is replaced.
Confirm VCO (step 2) and adjust if improper.

*1 Stereo modulation : Main 1kHz L+R ±68.25kHz dev.
Pilot 19kHz ±6.75kHz dev.

7.2 ADJUSTMENT OF AM (MW) TUNER SECTION

- Set the mode selector to AM (MW) BAND.
- Connect the wiring as shown in Fig. 7−2.

Step No.	Adjustment Title	AM SG (400Hz 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	TUNED IND. Lighting level	999	55 (±5dB)	999kHz	VR901	Adjust so that the indicators of TUNED IND. start to light up.

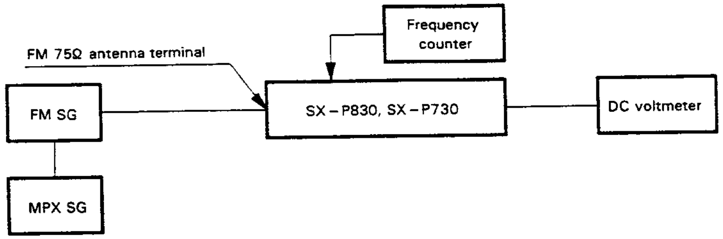

Frequency counter
FM 75Ω antenna terminal
FM SG
SX-P830, SX-P730
DC voltmeter
MPX SG

Fig. 7-1 FM Adjustment Connection Diagram

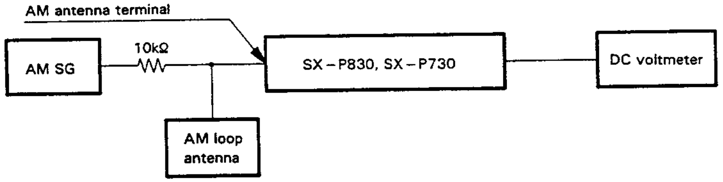

AM antenna terminal
AM SG
10kΩ
SX-P830, SX-P730
DC voltmeter
AM loop antenna

Fig. 7-2 AM (MW) Adjustment Connection Diagram

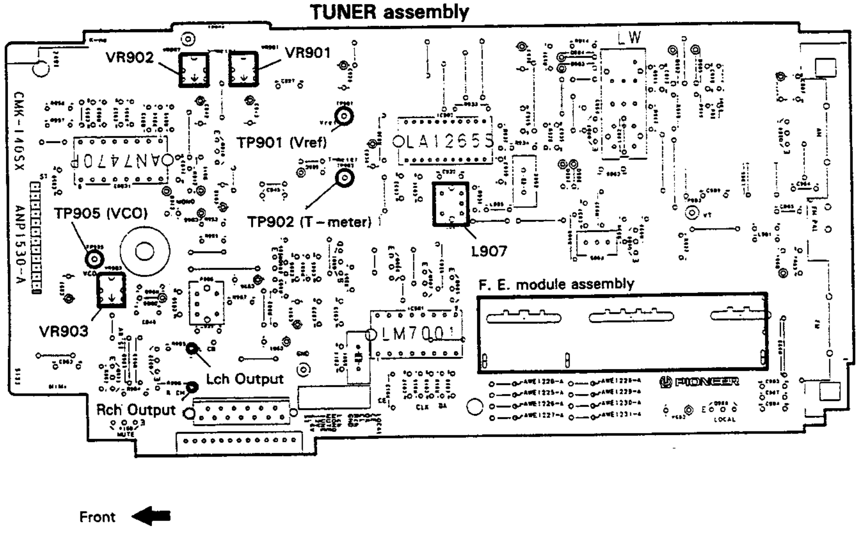

TUNER assembly
VR902
VR901
CMK-140SX
ANP1530-A
AN7470P
TP901 (Vref)
LA1265S
LW
TP905 (VCO)
TP902 (T-meter)
L907
F. E. module assembly
VR903
LM7001
Lch Output
Rch Output
PIONEER
Front

Fig. 7-3 Adjustment Points

8. FOR HB TYPE

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

8.1 FOR SX-P830/HB

SX-P830/HB and SX-P830/HE have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		SX-P830/HE	SX-P830/HB	
◉	SUB POWER assembly	AWZ4362	AWZ4361	*1
⚠	AC power cord	ADG1049	ADG1118	
NSP	Rear panel	ANC1939	ANC1938	
	Operating instructions (German, Italian)	ARC1379	....	
	Operating instructions (Dutch, Swedish, Spanish, Portuguese)	ARE1254	....	

**1 : Although AWZ4361 and AWZ4362 are different in part number, they have the same service parts.*

8.2 FOR SX-P730/HB

SX-P730/HB and SX-P730/HE have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		SX-P730/HE	SX-P730/HB	
◉	SUB POWER assembly	AWZ4362	AWZ4361	*1
⚠	AC power cord	ADG1049	ADG1118	
NSP	Rear panel	ANC1944	ANC1943	
	Operating instructions (German, Italian)	ARC1379	....	
	Operating instructions (Dutch, Swedish, Spanish, Portuguese)	ARE1254	....	

**1 : Although AWZ4361 and AWZ4362 are different in part number, they have the same service parts.*